

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

AUTOMOTIVE TECHNOLOGIES  
INTERNATIONAL, INC.,

Plaintiff,

VS.

AMERICAN HONDA MOTOR COMPANY, et al.

Defendants.

C.A. No. 06-187 GMS

**ATI'S BRIEF IN RESPONSE TO DEFENDANTS' MOTION TO TRANSFER  
VENUE TO THE UNITED STATES DISTRICT COURT FOR THE  
EASTERN DISTRICT OF MICHIGAN PURSUANT TO 28 U.S.C. §1404(a)**

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## INTRODUCTION

This is a patent infringement action brought by Plaintiff Automotive Technologies International, Inc. (“ATI”), a Delaware corporation, against General Motors Corporation (“GM”) another Delaware corporation, Elesys North America, Inc. (“ENA”), a Georgia corporation, and American Honda Motor Company (“Honda”), a California corporation.

ATI is a small research and development company. It has a portfolio of many patents in the field of automotive safety, twelve of which are asserted in this case against occupant sensing systems designed by ENA and used in cars sold by Honda and GM. This Court’s jurisdiction has been admitted by all Defendants.<sup>1</sup> Notwithstanding the fact that not a single party in this dispute is incorporated in the State of Michigan, and that only one - - GM - - even maintains its principal place of business in Michigan, *each* of the Defendants ask this Court under 28 U.S.C. §1404 (a) to change venue of this action to the United States District Court for the Eastern District of Michigan.

The motion should be denied. At the time of filing ATI had neither a place of business nor employees within the Eastern District of Michigan. The only Michigan connection mustered up between ATI and Defendants’ desired forum is that ATI’s principal has a summer home in a town in the *Western* District of Michigan. To compensate for the lack of any significant relevant factors pointing to the Eastern District of Michigan by anyone other than GM, Defendants’ joint motion is filled with irrelevant comparisons of distances that various alleged witnesses must supposedly travel to Delaware. Defendants’ motion submits no proof that these witnesses are necessary to litigate this case, or even that they are unwilling to travel to Delaware for trial.

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<sup>1</sup> The states of incorporation of all the parties have now been admitted in the Answers, Affirmative Defenses, and Counterclaim by all three Defendants, **Exhibit 1**.

Defendants' motion omits mention of numerous other witnesses who are located throughout the country and in Japan to whom the Delaware forum choice cannot rationally make a difference. And it glosses over the fact that the infringing technology was developed in Japan and Georgia by ENA's predecessors.

ATI chose Delaware for a rational and sensible reason: it, and at least one of the Defendants, chose it as its corporate place of business, all parties are subject to personal jurisdiction in this forum, this forum's docket is noticeably faster to resolution of complex cases than the proposed transferee court and many others, and there was no other forum in which witnesses had a markedly more convenient location than this one. Defendants' motion does nothing to overcome the presumption that ATI's forum choice should be followed. For the above reasons, Defendants' motion to transfer must be denied.

### **FACTS**

Plaintiff ATI is a little company, primarily engaged in research and development of automotive safety products. (**Exhibit 2**, Declaration of David S. Breed at Par.4). It has over 150 patents in the automotive safety field, and has been conducting business since 1988, when its principal, Dr. David Breed, left another supplier, Breed Technologies, to acquire ATI. (*Id.* at Pars. 3-4). Although it has from time to time produced products, ATI's primary focus lies in research and patenting of its automotive safety research. (**Exhibit 2**, Breed Decl. at Par. 3). ATI is a "virtual" company, in that it has no central office, and operates with only a few employees through consulting agreements with scientists located throughout the United States and the former Soviet Union republic of Ukraine. (*Id.* at Par. 4; **Exhibit 3**, Declaration of Ray Piirainen at Pars. 2-3). Dr. Breed is the primary inventor of ATI's extensive patent portfolio, and is the

first-named inventor on all of the patents-in-suit. Dr. Breed lives in Boonton Township, New Jersey. (**Exhibit 2**, Breed Decl. at Par. 5). Until recently, ATI had a small office in the metropolitan Detroit area. (**Exhibit 3**, Piirainen Decl. at Par. 6). By the time this suit was filed, that office had been closed, and ATI had no Michigan-based employees or scientist consultants. (*Id.* at Par. 5). ATI no longer has a business address anywhere in the Eastern District of Michigan. (*Id.* at Par. 6). ATI operates almost exclusively through digital means, storing its digitized records on servers in New Jersey and California, and what few administrative paper records it has are largely located with Ray Piirainen, in Charlotte, North Carolina. (*Id.* at Par. 7). Its patent attorney, Brian Roffe, is located in the New York City area. (**Exhibit 2**, Breed Decl. at Par. 6).

In contrast to ATI's tiny size, two of the Defendants are worldwide automotive companies, GM<sup>2</sup> and Honda.<sup>3</sup> ENA is a supplier formed from a joint venture between Honda and another Japanese electronic automotive supplier, NEC, Inc.<sup>4</sup> The technology at issue in this

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<sup>2</sup> GM sells cars in the United States under, among other names, the Buick, Saturn and Pontiac nameplates. GM says on its website: "General Motors Corp. (NYSE: GM), the world's largest automaker, has been the global industry sales leader for 75 years. Founded in 1908, GM today employs about 327,000 people around the world." Cite: [http://www.gm.com/company/corp\\_info/profiles/](http://www.gm.com/company/corp_info/profiles/).

<sup>3</sup> Honda North America is the United States operation for its Japanese parent. Honda sells cars in the United States under Honda and Acura nameplates. The company says on its North American website: "Honda has been a major contributor to the U.S. economy for more than 45 years.....We opened our first U.S. plant in 1979 and have evolved into a company that directly employs more than 25,000 Americans. More than 100,000 workers are employed at authorized Honda automobile, motorcycle and power-equipment dealerships in the United States." Cites: <http://corporate.honda.com/america/index.aspx>; <http://corporate.honda.com/america/overview.aspx> .

<sup>4</sup> The Elesys North America corporate website indicates its headquarters are in Georgia, its parent headquarters in Japan, and that it has a sales/marketing office in Plymouth, Michigan. (**Exhibit 10**). Its website says:

litigation involves a number of systems in Honda, Acura, Buick, Pontiac, and Saturn vehicles. Broadly speaking, these systems concern passenger and child seat sensing.

The twelve patents-in-suit generally arise from applications filed by ATI in 1992, 1993 and May, 1994. (**Exhibit 8**, first pages of each patent). The first-named inventor of each patent-in-suit is ATI's principal, Dr. Breed. (*Id.*). ATI consultants Wilbur DuVall and Wendell Johnson, appear as the second and third named inventors on U.S. Patent No. 6,325,414, U.S. Patent No. 5,901,978, U.S. Patent No. 6,397,136, U.S. Patent No. 6,422,595, U.S. Patent No. 6,712,387, U.S. Patent No. 6,757,602, U.S. Patent No. 6,869,100, U.S. Patent No. 6,942,248 and U.S. Patent No. 6,958,451.<sup>5</sup> The patents' claims cover a variety of hardware and software

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"In 2002, ELESYS North America Inc. was formed through a joint venture between HONDA Japan and NEC Solutions America. This venture, together with exclusive patent rights and innovative technology, placed ELESYS at the forefront of automotive electronic safety."

Cite: <http://www.elesys-na.com/content.cfm?page=11>. A press release ENA authored in 2003 says:

"Honda Motor Co. and NEC Solutions have formed a business to sell occupant-sensing technology to other automakers. Elesys North America Inc. of McDonough, Ga., was incorporated in October, but the company used last week's SAE World Congress to talk about its business plans. Honda owns two-thirds and NEC owns the remaining one-third of Elesys North America, which is a subsidiary of Honda Elesys Co. Ltd. of Yokohama, Japan. The company is the spinoff of NEC's Automotive Electronics Division. Elesys North America's president, Akio Kobayashi, 52, was with Honda r&d for 25 years, the past 15 years as chief engineer. Elesys' key technology is the SeatSentry Occupant Sensing System, licensed from the Massachusetts Institute of Technology. The product relies on wires embedded underneath the seat cover to generate an electromagnetic field that detects the size of a seat occupant and whether he or she is out of position...Elesys has 200 employees globally, including 53 in the United States."

(**Exhibit 4**).

<sup>5</sup> Five additional inventors are listed in the two other patents-in-suit, U.S. Patent No. 6,397,136 and U.S. Patent No. 6,757,602.



aspects of the relationship between vehicle occupants, seats, and airbags, and the deployment of airbags in relation to occupant presence and/or position.<sup>6</sup>

For example, U.S. Patent No. 6,869,100 has claims that read as follows:

<b>Claim 1</b>
A method for controlling deployment of an airbag, comprising the steps of:
Determining the position of an occupant to be protected by deployment of the airbag;
Assessing the probability that a crash requiring deployment of the airbag is occurring;
Enabling deployment of the airbag in consideration of the determined position of the occupant and the assessed probability that a crash is occurring, said deployment enabling step comprising the steps of analyzing the assessed probability relative to a pre-determined threshold and enabling deployment of the airbag is only when the assessed probability is greater than the threshold; and
Adjusting the threshold based on the determined position of the occupant.
<b>Claim 2</b>
The method of Claim 1, wherein the step of determining the position of the occupant comprises the step of receiving waves from a space in a passenger compartment of the vehicle occupied by the occupant.
<b>Claim 11</b>
The method of Claim 1, wherein the step of determining the position of the occupant comprises the step of arranging an electric field sensor operative in a seat occupied by the occupant.

U.S. Patent No. 5,901,978 has claims that read:<sup>7</sup>

<b>Claim 1</b>
In a motor vehicle having an interior passenger compartment including a seat on which a child seat may be placed, a detector system for detecting the presence of the child seat on the seat, comprising:
receiving means arranged in the vehicle for obtaining information about contents of the seat and generating a signal based on any contents of the seat, said receiving means being structured and arranged to generate a different signal for different contents of the seat when such contents are present on the seat, and

<sup>6</sup> The technology arose in response to issues of passenger safety in an airbag-equipped vehicle. Out-of-position passengers as well as small children or infants in car seats can easily be injured by a deploying airbag. Decisions relating to airbag suppression based on occupant position or presence must be made almost instantly in a collision event. Some of the concepts at issue in the patents-in-suit are enabling airbag deployment relative to a pre-determined threshold; development of deployment algorithms; systems for determining occupancy state of a seat of a vehicle; trained pattern recognition algorithms; child seat sensing; rear-facing child seat sensing; side airbag suppression; signal analysis; determination of occupant position; passenger weight sensing; occupant classification; and occupant categorizing functions.

<sup>7</sup> These are for the Court's understanding only, and not a representation that the listed claims are the only ones asserted from these representative patents.

analyzing means coupled to said receiving means for analyzing the signal in order to determine whether the contents of the seat include a child seat.
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<b>Claim 2</b>
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The system of claim 1, wherein said analyzing means are structured and arranged to determine whether the child seat is in a rear-facing position.
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The commercialized products accused of infringement are believed to have been initially developed by an engineer at NEC Technologies, Inc., named Philip Rittmueller. (**Exhibit 9**). According to news reports quoting him, in the fall of 1994 (after ATI had already filed applications for occupant presence and position sensing methods and devices in 1992, 1993, and May, 1994), Rittmueller visited labs at the Massachusetts Institute of Technology, saw an electric field sensor in use, and began work on an electric field sensor to be used in cars to sense the position of an occupant. Out of this collaboration, NEC and Honda (Japan) commercially developed a system several years later. (*Id.*). The electric field sensors in the accused commercial systems generate information about an occupant of a passenger seat. Information from the sensor, and other inputs, is processed by an electronic control unit which commands the deployment or suppression of a vehicle's front and/or side airbags. As explained by ENA on its website, one version of its Passenger Sensing System generally works as follows:

#### Passenger Sensing Systems (PSS)

**Safety Goal:** To protect children and small adults from the deployment of front airbags.

#### Benefits:

- Suppresses airbags for small children and small stature adults in accordance with the National Highway Traffic and Safety Administration (NHTSA) occupant classification system
- Protects small children and small stature adults in the event of a frontal crash from the impact of a deployed airbag
- "E-field imaging" technology is mounted into the seat cushion (seat reconfiguration does not compromise the system)
- Senses the presence of a child regardless of the position, e.g. kneeling or sharing a seat



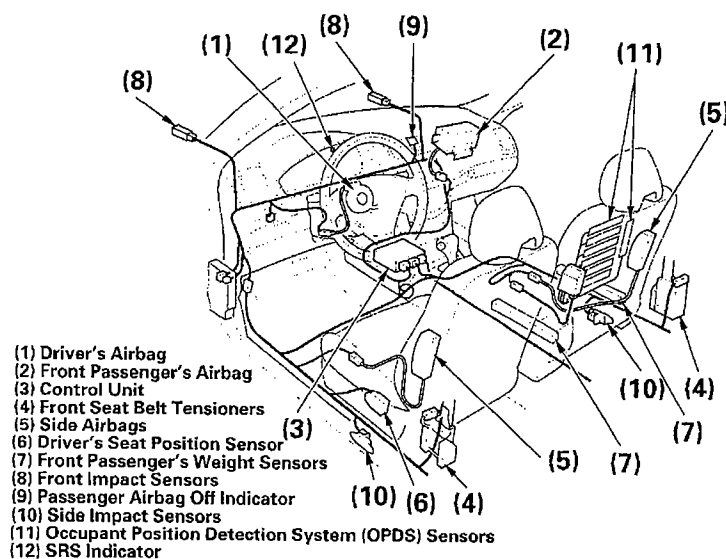
A six-year old child seated will suppress the airbags

**How it works:** The sensors mounted to the seat cushion set-up a low-level electric field (EF), "e-field," which detects the presence and size of the passenger. The information is transmitted to the ECU, where the occupant's classification is determined; the information is then transmitted to the airbag's ECU for proper deployment or suppression.

(Cite: <http://www.elesys-na.com/content.cfm?page=37> )

The physical components of the accused systems involved in this litigation can be seen in this exemplary schematic taken from a 2005 Honda owner's manual (**Exhibit 5**). This depicts the system components which make up the accused Honda Occupant Position Detection System:

Airbag System Components



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This simplified diagram shows the electric field sensor (11). It is connected to airbag sensors (8, 10), the electronic control unit (3), and several airbags (1, 2, and 5). Each of these components (and others not mentioned or pictured), for all of the vehicles at issue (thus far what is known is that the systems are installed in various models of Honda, Acura, Buick, Pontiac, and Saturn), infringes the patents-at-issue.

### ARGUMENT

#### A. §1404(A) DOES NOT WARRANT TRANSFER

§1404(a) provides:

For the convenience of the parties and witnesses, in the interests of justice, a district court may transfer any civil action to any other district or division where it might have been brought.

28 U.S.C. §1404(a). Considering a motion to transfer pursuant to this section, the Third Circuit holds that:

It is black letter law that a plaintiff's choice of a proper forum is a paramount consideration in any determination of a transfer request, and that choice should not be lightly disturbed.

*Shutte v Armco Steel Corp.*, 431 F.2d 22, 25 (3<sup>rd</sup> Cir. 1970) (omitted). "It is the movant's burden to establish the need to transfer, and the plaintiff's choice of venue will not be likely disturbed." *Textron Innovations, Inc. v Toro Co.*, No. Civ. A.05-486GMS, 2005 WL 2620196 \*1 (Slip. Op. D. Del. October 14, 2005). As *Textron* held, "Unless the balance of convenience strongly favors a transfer in favor of defendant, the plaintiff's choice of forum should prevail." (*Id.*). See also, *Waste Distillation Technology, Inc. v Pan American Resources, Inc.*, 775 F. Supp. 759, 762 (D.Del. 1991) (movant "bears the burden of proving that justice requires a substitute forum and a transfer is not to be liberally granted").

While there is no definitive list of balancing factors that a court should consider when deciding a motion to transfer, courts construing §1404(a) have commonly considered factors such as the plaintiff's choice of forum, the defendant's preference, the convenience of the parties as indication by their physical and financial condition, the convenience of the witnesses, the location of documents, as well as public interests such as enforceability of judgments, practical considerations that could facilitate trial, the relative administrative efficiency of the two fora, and the local interest in deciding local controversies at home. See *Jumara v State Farm Insurance Co.*, 55 F.3d 873, 879 (3<sup>rd</sup> Cir. 1995). None of these factors support the relief requested in the instant motion.

**1. PLAINTIFF'S CHOICE OF FORUM SHOULD NOT BE  
DISTURBED AS ATI CHOSE TO SUE GM, HONDA, AND ENA IN  
DELAWARE FOR LEGITIMATE REASONS**

Deference should be given to a plaintiff's choice of forum when it is based on rational and legitimate reasons. *Schering Corp. v Amgen, Inc.*, 969 F.Supp. 258, 262 (D. Del. 1997) (internal citations omitted). GM and Honda make and sell cars throughout the United States -- including in Delaware -- with occupant detection systems that infringe twelve of ATI's patents. ENA is well acquainted with the fact that its systems are incorporated into millions of vehicles sold in the U.S. ATI sued GM in Delaware since both ATI and GM are incorporated in this state and are subject to the personal jurisdiction of this Court. Both Honda, a California corporation, and ENA, a Georgia corporation, are also subject to personal jurisdiction in this Court, a fact recently admitted by both in their Answers to ATI's Amended Complaint. (**Exhibit 1**). There is a commonality of facts in this litigation, namely that all of the occupant position/presence systems at issue are operated by the ENA electric field sensor and the data processed through ENA-supplied electronic control unit.<sup>8</sup> While the particular structure of how these occupant presence/position systems may vary as between a Buick and an Acura, the basic technology employed in all of the systems sold by ENA to GM and Honda is believed to be the same. As noted above, the systems at issue employ electric field sensors adapted by ENA's corporate predecessor, NEC, to the automotive applications that led to this litigation. (**Exhibit 4, Exhibit 9**). Thus, questions as to development of the infringing technology are common as to all three Defendants.

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<sup>8</sup> ENA admitted in its answer that it is the supplier of the ECU and other parts of the system to both GM and Honda.

By filing a single lawsuit against all three Defendants which import, make, sell and use the electric field sensor system in Delaware, ATI has sought to save costs by litigating in a single forum all of the common issues of fact and law it expects to have to litigate against these three entities. The common issues relating to this case, including claim construction, scope and validity of the patents-in-suit, also led to a joint filing in this Court, even though only one Defendant had incorporated here.<sup>9</sup> Given these legitimate reasons, the burden falls on Defendants to prove “that the balance of convenience of the parties and witnesses strongly favors the Defendants.” *Tuff Torq Corp. v Hydro-Gear L.P.*, 882 F.Supp. 359, 361 (D.Del. 1994) (internal quotations omitted); *Bergman v. Brainin*, 512 F. Supp. 972, 973 (D.Del. 1981). Defendants’ motion fails on this score.

## 2. THE BALANCE OF PRIVATE INTERESTS DOES NOT STRONGLY FAVOR TRANSFER TO THE EASTERN DISTRICT OF MICHIGAN

Defendants argue in rather summary fashion that the balance of private interests favors transferring this case to the Eastern District of Michigan because the majority of documents relating to the design, and development of the accused products and a number of the individuals likely to be called as witnesses may reside either in the State of Michigan or are closer to Michigan than to Delaware.

Defendants’ motion paints too broad a picture of the private factors. It ignores that GM, one of the moving Defendants, is a Delaware corporation. “By incorporating in Delaware, it can

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<sup>9</sup> “Delaware has an interest in litigation involving companies incorporated within its jurisdiction.” *Ace Capital, et al. v. Varadam Foundation*, 392 F. Supp. 2d 671, 676 (D. Del. 2005). It is notable that ENA and Honda do not want a transfer to Georgia or California, where each company presumably does the bulk of its business, but to Detroit, where the only Delaware company among the defendant group does some of its business.

be assumed that [GM] desired the benefits it believed Delaware provides to chartered corporations...and should not now complain that another corporation has decided to sue [it] in Delaware.” *Critikon, Inc. v Becton Dickinson Vascular Access, Inc.*, 821 F.Supp. 962 (D. Del. 1993); *accord Tuff Torq*, 882 F. Supp. at 363). Honda and ENA’s minor presence in the Eastern District of Michigan is largely irrelevant, as technological advances “have substantially reduced the burden of having to litigate in a distant forum.” *Wesley-Jessen Corp. v Pilkington Visioncare, Inc.*, 157 F.R.D. 215, 218 (D. Del 1993); *C.R. Bard, Inc. v Guidant Corp.*, 997 F.Supp. 557 (D. Del. 1998). All three Defendants are large companies, notably of course, the world’s largest automaker, GM, and one of the largest Japanese automakers, Honda, which sells millions of cars in the U.S., and even makes cars in Ohio as well as in Japan.<sup>10</sup> For companies like these, that are “engaged in business throughout the United States,” the convenience of the parties’ factors are entitled to little or no weight. (*Id.*). And, the Defendants have already answered the lawsuit and filed counterclaims in Delaware district court, indicating a willingness to litigate here. *See Bae Systems Aircraft Controls, Inc. v. Eclipse Aviation Corp.*, 224 F.R.D. 581, 589 (D.Del. 2004) (denying motion to transfer, court notes “..the parties have taken significant steps to further the litigation in the District Court of Delaware. Eclipse answered its complaint and filed the motion at bar... [t]ransfer will delay the litigation...”).

**i. The Location Of Defendants’ Employees Is Not Relevant To A Section 1404(a) Analysis, And Defendants In Any Event Have Failed To Show Why These Potential Witnesses’ Testimony Is Not Cumulative Or That Any Employee-Witness Is Unavailable For Trial In Delaware**

The Defendants’ balance of convenience arguments with regard to witnesses should carry little weight with this Court. The only named witnesses for Defendant GM who are identified as

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<sup>10</sup> See <http://www.ohio.honda.com/Company/celebrate.cfm>.



living in the Eastern District of Michigan are all GM employees. (Defendants' Motion, Tab E, Ressler Declaration). Elesys also summarily names a VP of marketing and two engineers who allegedly have knowledge of facts relating to the litigation (Defendants' Motion, Tab D, Kobayashi Declaration). Honda apparently cannot muster up any metro-Detroit area witness at all, company-employed or otherwise. (Defendants' Motion, Tab F, Bonawitz Declaration). But the locations of even the people identified by Defendants as living in the Detroit area are irrelevant: this Court has repeatedly held that the convenience of party witnesses or witnesses *who are employed by a party* carry no weight in the "balance of convenience" analysis, because each party is able and obligated, to procure the attendance of its own employees for trial. *See Affymetrix, Inc. v Synteni, Inc.*, 28 F.Supp.2d 192, 203 (D. Del. 1998); *Asten, Inc. v Weavexx, Inc.*, 2000 WL 1728354 \*4 (Slip. Op. D. Del. 2000).

And even if it was relevant, which it is not, Defendants have completely failed to indicate *why* the testimony of any of these alleged witnesses will actually be needed at trial. *See Schering Corp. v Amgen, Inc.*, 969 F.Supp. 258 (D. Del., 1997) ("what is key at this nascent stage of the litigation is the court's impression of the nature of prospective testimony to be given by the witness - - does it go to an important issue, is it cumulative..." (internal quotation omitted)). Defendants do not even allege that they intend to call all of these witnesses at trial. There is no suggestion that the knowledge of these four alleged witnesses is unique and not cumulative. *See Arrow Communication Laboratories v. John Mezzalingua Associates, Inc.*, 2005 WL 2786691 (Slip Op. D. Del. Oct. 26, 2005). ("Toro has not asserted that the identified witnesses are the only individuals capable of testifying as to the technology of the accused products.")

Finally, Defendants' motion suffers from the added deficiency that there is no indication that any of the people identified as alleged witnesses are unavailable to come to Delaware for

trial. “The court, however, has denied motions to transfer venue when the movants were unable or unwilling to identify documents or witnesses that were unavailable for trial in Delaware. [citation omitted]” *Ace Capital, supra*, 392 F. Supp. 2d at 676. The fact that Defendants have collectively come up with less than ten names of their own employees, who may live in the Eastern District of Michigan, can be accorded no weight at all by this Court in the private factors analysis.

**ii. No Witness Who May Be Called At Trial By ATI Lives In The Eastern District Of Michigan**

ATI has no place of business within the Eastern District of Michigan. It has no employees in the State of Michigan, and none of the consultants that it employs are located anywhere close to Michigan. ATI employs only four people, two of whom are located in Charlotte, North Carolina, with another in New Jersey. It has a contractual relationship with five individuals as consultants, several of whom are the named inventors in the patents-in-suit. These individuals live in Hawaii, Missouri, California, and the Ukraine. It also has consulting arrangements with numerous other scientists, again largely located in the Ukraine. (**Exhibit 3**, Piirainen Decl. at Pars. 3-4). There is no Detroit-area presence between any of these people suggesting that the Eastern District of Michigan is a more convenient forum.

A primary inventor of the subject patents is David S. Breed, ATI’s principal. Dr. Breed lives in Boonton Township, New Jersey, which is much closer to the District of Delaware than the Eastern District of Michigan. Dr. Breed does not own a home in the Eastern District of Michigan; he does have a share of a summer home on the western shore of the State of Michigan, located in the Western District of Michigan, which he visits from time to time.

(**Exhibit 2**, Breed Decl. at Par. 5). The location of a personal piece of property of a shareholder of a party cannot have a conceivable effect on a §1404(a) transfer - - one suspects that shareholders of GM also reside in Delaware.

To the extent that issues relating to the prosecution of the patents at issue become relevant, all of the subject patents were prosecuted by Brian Roffe, a New York patent attorney with offices in the greater New York City area. Some of the predecessor patents and applications were prepared and prosecuted by Karl Milde, a patent lawyer located in Westchester County, New York. (*Id.* at Par. 6). Neither witness would be particularly inconvenienced by having to travel to Detroit rather than to Delaware.

Plaintiff does not yet know what witnesses are likely to be used, if any, in its case-in-chief who may be employed by the Defendants. It is clear that the electric field sensors were originally developed when ENA was not a stand-alone company, but was instead a joint venture between a Japanese company, NEC, and another Japanese company, the parent of Defendant Honda, Honda (Japan). Thus, the locations of individuals not identified in Defendants' motion who are now third parties (though presumably affiliated with ENA) are more relevant in the transfer analysis than the summary list of names generated by Defendants. Clearly, one such individual is Philip Rittmueller, the former NEC engineer who publicly said he came up with the idea of adapting an electric field sensor to cars. He is not identified in Defendants' motion. As will be seen below, Mr. Rittmueller apparently now resides in Illinois.

Finally, Defendants' answers have acknowledged that prior to suit, both Elesys and Honda were in receipt of letters from ATI concerning some of the patents-in-suit.<sup>11</sup> To the extent that willfulness is an issue in this case - - as it is expected to be - - evidence concerning the actual knowledge by ENA and Honda of ATI's patents before suit, and its analysis of those patents, will be at issue. All of the individuals who received the ATI letters are located in either California or Japan. (**Exhibit 7**, Kochanowski Decl. at Par. 9).

**iii. Defendants' Discussion Of Third Party Witnesses Omits Any Showing Of What Witnesses Are Necessary, Or That They Are Not Amenable To Coming To Delaware**

**1) Seat Assemblies**

On the subject of third-party witnesses, Defendants' motion is devoid of anything but conclusory statements that some unidentified third parties manufacture other components used in the accused systems or that the seats themselves are made by third parties. Other than unsupported claims that these seat makers are "integrators," there is no hint as to why these third party seat manufacturers need to testify at trial, that they cannot testify in Delaware, or why the case would need to be moved to the Eastern District of Michigan to accommodate these unnamed third parties' needs. Where, as here, a party moving for transfer cannot or will not supply the Court with a specific explanation of the importance of the third party witness to its case, the availability of those witnesses does not weigh heavily in favor of transfer. *Sunds*

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<sup>11</sup> Honda admits that Koichi Kondo, William Willen, and Takeo Oi (from Honda Motor Co., Ltd, Japan) received letters from ATI concerning numerous of the listed patents prior to suit. (**Exhibit 1**, Honda Answer at Par. 21). ENA admits to discussions in February, 2004 concerning certain ATI patents-in-suit. (Id., ENA Answer at Par. 21). Kondo and Willen are in California, and Oi in Japan. (**Exhibit 7**, Kochanowski Decl. at Par. 9).

*Defibrator, Inc. v Durametal Corp.*, No. Civ. A86-483 MMS, 1997 WL 74660 at \*3 (D. Del. 1997).

And even if some, unnamed, third parties are important in this case, concerns about these witnesses are not timely at this stage. Dispositive pretrial motions or document discovery could make their testimony irrelevant or cumulative. And if it turns out that the third parties' testimony is required at trial, it can be introduced by videotape deposition. *See, Schering Corp.*, 969 F.Supp. 258 at 269 (denying a defendant's motion to transfer in part because third party witness's videotaped testimony was sufficient). *See also, Bae Systems Aircraft, supra*, 224 F.R.D. 581 at 589 (denying motion to transfer, court noted, "... it is clear that discovery will be conducted at locations convenient to the parties and their employees. The only event that will take place in Delaware is the trial.").

## 2) Named Inventors

Defendants' recitation of the alleged need to have the named inventors testify in Detroit rather than Delaware - - and the strained time/distance analysis of relative travel times of these individuals, is of little consequence. Two of the eight named inventors (DuVall and Johnson) are currently consultants to ATI, so do not "count" with respect to any inconvenience analysis. ATI will be able to have these individuals testify at trial. (**Exhibit 3**, Piirainen Decl. at Par. 3). Of course Dr. Breed is a party witness. It is clear from the fact that only three inventors are listed on all of the patents-in-suit, and that ten patents list only these three inventors, that the vast bulk of the inventions at issue occurred between the first-named inventor, Dr. Breed, and the two current ATI consultants, Wilbur DuVall and Wendell Johnson. Thus, the convenience of the three chief witnesses has no bearing on the transfer analysis.

Five additional inventors are listed, but only in two of the twelve patents at issue. Two of them live outside the United States, Michael Kussul, in Ukraine, and Tie-Qi Chen in Canada (See Defendants' Brief at p.8). Neither of these individuals is subject to compulsory process, either in Kiev or from across the border in Detroit, so the location of a U.S. forum is irrelevant as to both.<sup>12</sup>

Defendants have not suggested to the Court that the remaining three inventors on two out of the twelve patents are unwilling or unable to come to Delaware, or indeed why their testimony is even needed in this case. ATI has a continuing relationship with its former employee inventors (all of whom assigned the inventions to ATI) and has been assured that, if necessary, these individuals would in fact be willing to come for trial in Delaware. (**Exhibit 3**, Piirainen Decl. at Par. 8).<sup>13</sup> Thus, the location of none of the eight inventors supports Defendants' motion.

### 3) Other Third-Party Witnesses

Defendants' motion completely comes apart on the subject of other third-party witnesses. Elesys supports its motion with a declaration from Akio Kobayashi, its President (Defendants' Motion, Tab D), who, as indicated in Elesys' press release (**Exhibit 4**), had been with Honda previous to the Elesys spin-off. Mr. Kobayashi surely knows that the core technology at issue

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<sup>12</sup> The notion suggested in Defendants' brief that some witnesses are subject to compulsory process in the Eastern District of Michigan, is disingenuous. FRCP 45 provides for service of process throughout the United States, so every US-based witness can be subpoenaed. The only question is whether at trial the witness would be compelled to appear live or through a live video feed. And, of course, two of the named inventors do not appear to even live in the United States, so whether the trial is in Detroit or in Delaware is irrelevant—they can only appear voluntarily.

<sup>13</sup> Kunhong Xu, a named inventor on one patent, currently works for Defendant GM. (**Exhibit 3**, Piirainen Decl. at Par. 8). In the event GM needs her testimony (subject to ATI's continuing attorney-client relationship with Xu concerning the patent prosecution), she should be treated as a GM employee whom GM has an obligation to bring to Delaware.

was largely not developed by Elesys, a company incorporated in 2002, but by its predecessors, Honda and NEC.<sup>14</sup> As the NEC/Honda patents and applications show, with one exception, all of the engineers who are “developing” that technology which ATI believes infringes its patents are located in Japan or, in a few cases, in Georgia (the principal place of business of ENA). The one exception is Philip Rittmueller, who is listed as an inventor in one granted patent and on U.S. App. 2004/0111201, and who is from St. Charles, Illinois. (**Exhibit 6**). It is this group of individuals - - who worked on the commercialized technology at issue and who are now with non-party NEC and non-party Honda (Japan) - - that consists of the most likely witnesses to testify about the commercialized product, not the few current people in sales or testing who happen to be in ENA’s small Detroit office mentioned in Defendants’ motion.<sup>15</sup>

Defendants’ motion mentions the existence of various testing facilities and seat suppliers in many states: Indiana, Ohio, Tennessee, Missouri, as well as internationally in Canada and Mexico. With all due respect, putting aside that there is no indication in Defendants’ motion

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<sup>14</sup> As noted in Elesys’ press release (**Exhibit 4**), Elesys took over from NEC and Honda (Japan) as a stand-alone company and obtained licenses to the electric field technology from these entities. Numerous patents have been issued to NEC and Honda relating to the electric field technology, for example, US 6,043,743; US 6,161,070; US 6,208,249; US 6,263,271; US 6,310,407; US 6,325,413; US 6,329,913; US 6,329,914; US 6,356,187; US 6,404,074; US 6,556,137; US 6,559,555; US 6,960,841; US App. 2003/0204295; US App. 2004/0075259; US App. 2004/0111201; US App. 2004/0196150; US App. 2004/0199318; and US App. 2005/0121885. (**Exhibit 6**, first pages of each patent/application).

<sup>15</sup> It appears from the NEC and Honda patents in **Exhibit 6** that the following people who developed the technology for NEC and Honda (Japan) may have relevant knowledge concerning the commercialized systems accused of infringement: Kazunori Jinno (Georgia), Saikichi Sekido (Japan), Takashi Saito (Japan), Masahiro Ofuji (Japan), Masanori Sugino (Japan), Yoshitaka Osa (Japan), Tsutomu Fakui (Japan), Nobuhiro Koyota (Japan), Takashi Inon (Japan), Kazutomo Isonaga (Japan), Kenji Kumagai (Japan), Satoshi Baba (Japan), Maketo Nagai (Japan), Shinh-An Shieh (Georgia), Masanohi Shinmura (Georgia), James Frederick Kirksay (Georgia), Keiichi Hasagawa (Georgia), Svetoslav G. Stoyavov (Georgia), and Gregory T. Thompson (Georgia).

(1) who the particular witnesses for these seat suppliers may be, (2) why these witnesses are even necessary to the issues in this case, or (3) that any particular witness from these facilities could not come to trial, all that recitation does is underscore that Detroit is no more convenient to host this litigation than Wilmington.

The notion that ATI had a license with Autoliv Corporation, a Swedish automotive supplier, and that Autoliv has a Detroit office, is irrelevant. All of the material dealings between ATI and Autoliv took place in Sweden with Swedish personnel. (**Exhibit 2**, Breed Decl. at Par. 7). In the unlikely event that testimony from Autoliv becomes material, all relevant witnesses are located in Sweden.

Defendants' Motion fails to acknowledge certain other third-party witnesses who are unlikely to be located in the Eastern District of Michigan. As ENA's press release notes, it obtained patents and licenses from NEC to the electric field sensors. NEC is a worldwide semiconductor and electronics company.<sup>16</sup> Its headquarters is in Japan, with a U.S. base in Melville, New Jersey.<sup>17</sup> It is a safe assumption that records and witnesses relating to the Honda-NEC-Elesys transaction, technology, and patent transfer, are either in Japan, California (Honda U.S. headquarters), or New Jersey.

Witnesses relating to the pre-2002 ENA spin-off from Honda and NEC who may have relevant information about the accused systems' integration into Hondas and Acuras are also very likely to be located in Japan. And as Mr. Kobayashi acknowledges in his declaration, the Passenger Sensing System is made by an Indiana company and a Mexican company. (Decl. at

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<sup>16</sup> Cite: <http://www.nec.com>

<sup>17</sup> Cite: <http://www.necus.com/necus/about/>



Par. 8). The Honda systems sensor assemblies are made by a Japanese third-party. (*Id.* at Par. 11).

**iv. The Location Of Documents Does Not Weigh In Favor Of  
Transfer**

Courts in this District have noted that “in the modern, spare-no-expense world of well-heeled companies involved in patent litigation, transferring documents from the west coast to Delaware poses no large obstacle.” *Schering Corp.*, *supra*, 969 F.Supp. 258 at 269. That is the case here, and in fact, “Defendants have not specifically indicated... any documents that would be too burdensome to ship to Delaware.” *Ace Capital*, *supra*, 392 F. Supp. 2d at 676. Defendants -- multi-national corporations all -- make conclusory allegations that documents relative to this case are stored in the Detroit area. This argument is a bit disingenuous. Both GM and Honda have previously engaged in patent litigation with ATI in the Eastern District of Michigan, and in that case have produced documents from Japan and Detroit not in Detroit, but via their counsel in Washington, D.C. after the documents were shipped to Washington, D.C. and then back to Detroit. (**Exhibit 7**, Kochanowski Decl. at Par. 7). Moreover, it is common practice in patent litigation (indeed in many other forms of complex federal litigation) that physical documents are no longer shipped across country, but are instead digitally scanned and CD’s or DVD’s of the scanned documents produced among counsel in lieu of boxes and boxes of documents. (*Id.*). This factor should be accorded no weight by the Court. *See Adams v. Crowley*, 2005 WL 1240181 \*2, fn. 5 (Slip Op. D. Del. May 25, 2005) (denying motion to transfer, court notes, “Document production may well be in electronic format.”).

**v.     ATI's Prior Choice To Sue In The Eastern District Of  
Michigan Should Not Matter In The Court's Section 1404(a)  
Analysis**

It is true that ATI once had an office and employees in the Detroit area, though that fact itself would not necessarily weigh in favor of transfer. *Sony Electronics, Inc. v. Orion IP, LLC*, 2006 WL 680657 \*2 (Slip Op. D. Del., March 14, 2006). Defendants make the argument that because ATI chose the Eastern District of Michigan for certain other cases, they must continue to litigate there, perhaps forever. But when ATI filed its three cases in Michigan between 1999 and 2003, it had a Michigan office and Michigan employees. (**Exhibit 7**, Kochanowski Decl. at Par. 2). More importantly, each of those cases were filed against parties that made the Eastern District of Michigan a more obvious forum, unlike here. (*Id.* at Par. 6).

Nor does the fact that one of the four cases previously litigated in the Eastern District of Michigan concerned a patent which Defendants characterize as related to some of the patents-in-suit, make any difference to the transfer analysis. The initial applications filed by ATI in 1992, 1993 and 1994 resulted in over forty issued patents through continuations and continuations-in-part. (*Id.* at Par. 5). The Detroit case concerned one of those patents off a branch begun in 1995. Defendants can point to no common issue of fact or law that is implicated between that unrelated litigation over that patent (which concerned a bladder product made by Delphi Corporation, who is not a party here) and the present case. *See SRU Biosystems, Inc. v. Hobbs*, 2005 WL 2216889 \*3 (Slip Op. D. Del. Sept. 13, 2005) (refusing transfer even when all events, and witnesses are in Massachusetts, and another action between parties already in progress in Massachusetts).

**B. RATHER THAN FAVORING TRANSFER, THE BALANCE OF PUBLIC INTEREST STRONGLY FAVORS RETAINING THIS CASE IN DELAWARE**

As a Delaware corporation, GM should have “anticipated the possibility of being hauled into court here,” and the costs necessarily incident to that possibility. *Waste Distillation Technology, Inc. v Pan American Resources, Inc.*, 775 F.Supp. 759, 766 (D. Del. 1991). Neither Honda nor GM, large multi-national companies which sell millions of cars annually, can seriously complain about the cost of having to litigate in Delaware. ENA too, is a joint venture child of massive Japanese companies, NEC and Honda. See, *Affymetrix, Inc. v Incyte Pharms, Inc.*, 28 F.Supp. 2d 192, 208 (D. Del. 1998) (“...the parties are multi-million dollar corporations that can afford to litigate in a distant forum.”) Nor is this a case involving truly local controversies that somehow could be better litigated in the Eastern District of Michigan. The Defendants make automobiles sold worldwide and throughout the United States, or supply components for inclusion in such vehicles. Where, as here, the accused infringer is incorporated in Delaware and sells accused products worldwide, the District Court located near its corporate headquarters does not have a significantly greater interest in the controversy than Delaware. See, *Schering Corp.*, *supra*, 969 F. Supp. at 269; *Bering Diagnostics GMBH*, 1998 WL 24354 \*7 (D. Del. 1998). The important public interests will be promoted by retaining jurisdiction in Delaware, including conserving judicial resources, reducing docket congestion, and avoiding potential inconsistent results.

ATI chose to sue GM, Honda and ENA in Delaware because these parties are accused of infringing largely the same patents through common technology, and because this Court clearly has personal jurisdiction over all of the parties. There can be no question that ENA or Honda simply have no recognizable interests, much less witnesses, who necessitate transfer of the case

to the Eastern District of Michigan. While GM does have its headquarters located in Detroit, transferring only part of the case, against GM, to the Eastern District of Michigan would make this litigation a shambles. Interests of judicial economy “dictate that an action involving the same patents-in-suit and most of the same parties should not proceed simultaneously in two different district courts.” *Air Products and Chemicals, Inc. v MG Nitrogen Services, Inc.*, 133 F. Supp. 2d 354, 357 (D. Del. 2001).

Though Defendants believe that “comparative docket congestion” between this District and the proposed transferee district are comparable (Brief at p. 10), this is not entirely accurate. This Court is well known for its ability to manage its docket and expeditiously resolve complicated patent infringement disputes. *See, e.g., Bering Diagnostics GMBH*, 1998 WL 24354 at \*7 (“Delaware’s light docket has been repeatedly recognized...by both the Third Circuit Court of Appeals and this District.”). This is a case involving twelve patents and many car platforms, with counterclaims of invalidity and non-infringement already filed. By any reasonable definition, this will be a complex case. In the District of Delaware, the courts have an excellent record of handling complex cases: in the past five years only 3.9 to 9.1 percent of the cases filed in this district are over three years old. The Eastern District of Michigan, in stark contrast, suffers from an inability to dispose of complex cases. Over the past five years, a whopping 55.7 to 79.1 percent of its cases were over three years old.<sup>18</sup> If Defendants were really

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<sup>18</sup> Cite: <http://www.uscourts.gov/cgi-bin/cmsd2005.pl> (Judicial Caseload Profile Report, 2005). This unfortunately matches ATI’s own experience in the Eastern District of Michigan with patent infringement litigation. All four of its previous cases involved a single patent—not close to the twelve at issue here. The oldest case, *ATI/BMW, et al*, filed in 2000, took over 60 months to be decided by summary judgment, and even that before damages discovery was completed. Another case, filed in 2004 is still pending over two years later, with no discovery having been completed. A third, *ATI/TRW*, filed in 2002 is also still pending, over 44 months later. (**Exhibit 7**, Kochanowski Decl. at Pars. 3-5).

concerned about the cost of trial, this Court is proper to resolve this dispute, for “there is a direct correlation between how many months it takes to get a case to trial and the overall expense of the litigation, without regard to whether the case is tried on a company’s home turf or 3,000 miles away.” *ADE Corp. v KLA-Tencor Corp.*, 138 F. Supp. 2d 564, 572 (D. Del. 2001).

Nor should the argument that “citizens of the Eastern District of Michigan have a strong local interest in resolving this controversy, because it involves the U.S. auto industry, which is centered in Detroit” (Brief at p. 11), gain any traction. Aside from the fact that it is patronizing - - should all steel-industry patent cases be heard in Pittsburgh? All beer-industry cases in St. Louis? All beach front condo-development cases in Miami? - - the patents do not “involve” the auto industry, they involve a variety of electronic and software technologies that happen to be used in modern cars. As shown above, the electric field sensor commercialization apparently took place in Japan and Georgia. Plants and facilities throughout the U.S., Japan and Mexico, have a hand in assembling the accused systems. There are automobile assembly plants throughout the U.S., including in Delaware. The automobile industry is a global one. Even the well-publicized Delphi-UAW fight is being played out in a bankruptcy courtroom in New York.<sup>19</sup> There is nothing “local” to Detroit about this dispute.<sup>20</sup>

Finally, ATI has filed another case in this District relating to many of the same patents at issue, against three other parties, all Delaware corporations. That case also concerns passenger sensing/airbag suppression systems, although using different sensing technology than here.

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<sup>19</sup> And GM, Honda, and ENA hired a Chicago law firm to defend them.

<sup>20</sup> Defendants’ recitation of personal jurisdiction (Brief at pp. 13-15) is not germane to the §1404(a) analysis. Defendants have also admitted personal jurisdiction in this District.

(Exhibit 11). Judicial economy will be served by having this Court adjudicate both cases.

### CONCLUSION

ATI brought this case in the District of Delaware for legitimate and practical reasons. All parties are subject to personal jurisdiction, this Court has experience in patent matters, two of the parties, including the Plaintiff and one of the Defendants, are incorporated in Delaware, there is no risk of inconsistent rulings on the same patents in different fora, this Court is familiar with the patent laws, has considerable experience managing complex patent cases, and has an efficient docket that can assure quick dispute resolution. Defendants' convenience of parties' arguments are a concoction of conclusory allegations that do not come close to tilting the balance away from the presumption in favor of Plaintiff's chosen forum. For the above reasons, the Court should deny the Motion to Transfer and retain this action against all Defendants in Delaware.

Dated: June 21, 2006

/s/ Richard K. Herrmann

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**CERTIFICATE OF SERVICE**

I hereby certify that on the 21<sup>st</sup> day of June, 2006, I electronically filed the foregoing document, **ATTORNEYS' BRIEF IN RESPONSE TO DEFENDANTS' MOTION TO TRANSFER VENUE TO THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF MICHIGAN PURSUANT TO 28 U.S.C. § 1404(a)**, with the Clerk of the Court using CM/ECF which will send notification of such filing to the following:

Thomas C. Grimm, Esq.  
Benjamin J. Schladweiler, Esq.  
Morris, Nichols, Arsht & Tunnell LLP  
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Wilmington, DE 19801

Additionally, I hereby certify that on the 21<sup>st</sup> day of June, 2006, the foregoing document was served as indicated:

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# **EXHIBIT 1**

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

AUTOMOTIVE TECHNOLOGIES  
INTERNATIONAL, INC.,

Plaintiff,

v.

AMERICAN HONDA MOTOR CO., INC.,  
ELESYS NORTH AMERICA, INC., and  
GENERAL MOTORS CORPORATION,

Defendants.

Civil Action No. 06-187-GMS

**ANSWER, AFFIRMATIVE DEFENSES, AND COUNTERCLAIMS OF  
AMERICAN HONDA MOTOR CO., INC.**

Pursuant to Fed. R. Civ. P. 8 and 12, Defendant American Honda Motor Co., Inc. ("Honda"), answers the First Amended Complaint of Automotive Technologies International, Inc. ("ATP") as follows:

**PARTIES, JURISDICTION AND VENUE**

1. Plaintiff Automotive Technologies International, Inc. ("ATP") is a Delaware corporation.

**ANSWER:**

Admitted.

2. Defendant American Honda Motor Company ("Honda") is a California corporation. Defendant Honda imports and sells in the United States automobiles manufactured in Japan and the United States under the "Honda" and "Acura" names.

**ANSWER:**

Honda admits that it is a California corporation. Honda admits that it imports and sells in the United States certain vehicles manufactured in Japan under the "Honda" and "Acura" names. Honda admits that it sells in the United States vehicles manufactured in the United States under the "Honda" and "Acura" names.

3. Defendant Elesys North America, Inc. ("Elesys") is a Georgia corporation. Elesys is a supplier of products to the automotive industry.

**ANSWER:**

Honda is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 3, and therefore denies these allegations.

4. Defendant General Motors Corporation ("GM") is a Delaware corporation. GM sells vehicles in the United States under the "Buick," "Pontiac," and "Saturn" names, among others.

**ANSWER:**

Honda is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 4, and therefore denies these allegations.

5. This is an action for patent infringement. All of the acts of patent infringement complained of in this Complaint occurred, among other places, within this judicial district.

**ANSWER:**

Honda admits that this purports to be an action for alleged patent infringement. Honda denies the remaining allegations of paragraph 5.

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1338(a) and 28 U.S.C. § 1331 over this infringement action, arising under the Patent Act, 35 U.S.C. § 1 et seq., including §§ 271 and 281-285.

**ANSWER:**

Admitted.

7. Venue is proper in this Court pursuant to 28 U.S.C. §1391(b), (c) and 28 U.S.C. § 1400(b). The Court has personal jurisdiction over each of the parties.

**ANSWER:**

Admitted. Pursuant to 28 U.S.C. § 1404(a), however, venue is most proper in the United States District Court for the Eastern District of Michigan.

**JURISDICTION AND VENUE**

8. The following patents have been issued duly and legally to Plaintiff ATI on the following dates:

- a. U.S. Patent No. 5,901,978 entitled "Method and Apparatus for Detecting the Presence of a Child Seat," issued May 11, 1999. (Exhibit 1)
- b. U.S. Patent No. 6,242,701 entitled "Apparatus and Method for Measuring Weight of an Occupying Item of a Seat," issued June 5, 2001. (Exhibit 2)
- c. U.S. Patent No. 6,325,414 entitled "Method and Arrangement for Controlling Deployment of a Side Airbag," issued December 4, 2001. (Exhibit 3)
- d. U.S. Patent No. 6,397,136 entitled "System for Determining the Occupancy State of a Seat in a Vehicle," issued May 28, 2002. (Exhibit 4)
- e. U.S. Patent No. 6,422,595 entitled "Occupant Position Sensor and Method and Arrangement for Controlling a Vehicular Component Based on an Occupant's Position," issued July 23, 2002. (Exhibit 5)
- f. U.S. Patent No. 6,869,100 entitled "Method and Apparatus for Controlling an Airbag," issued March 22, 2005. (Exhibit 6)
- g. U.S. Patent No. 6,757,602 entitled "System For Determining the Occupancy State of a Seat in a Vehicle and Controlling a Component Based Thereon," issued June 29, 2004. (Exhibit 7)
- h. U.S. Patent No. 6,712,387 entitled "Method and Apparatus for Controlling Deployment of a Side Airbag," issued March 30, 2004. (Exhibit 8)
- i. U.S. Patent No. 6,942,248 entitled "Occupant Restraint Device Control System and Method," issued September 13, 2005. (Exhibit 9)

- j. U.S. Patent No. 6,958,451 entitled "Apparatus and Method for Measuring Weight of an Occupying Item of a Seat," issued October 25, 2005. (Exhibit 10)
- k. U.S. Patent No. 6,484,080 entitled "Method and Apparatus for Controlling a Vehicular Component," issued November 19, 2002. (Exhibit 11)
- l. U.S. Patent No. 6,850,824 entitled "Method and Apparatus for Controlling a Vehicular Component," issued February 1, 2005. (Exhibit 12)

**ANSWER:**

Honda admits that U.S. Patent Nos. 5,901,978, 6,242,701, 6,325,414, 6,397,136, 6,422,595, 6,869,100, 6,757,602, 6,712,387, 6,942,248, 6,958,451, 6,484,080 and 6,850,824 ("the ATI Patents") are attached to the Plaintiff's First Amended Complaint as Exhibits 1-12, respectively. Honda admits that ATI is the listed assignee on the face of the ATI Patents. Honda admits that the ATI Patents have titles of inventions and the issue dates identified in paragraph 8, a-1. Honda is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 8, and on that basis, denies these allegations.

**PATENT INFRINGEMENT**

9. All of the patents set forth in paragraph 8, a-1 (collectively, "the ATI Patents"), are valid, subsisting, enforceable, and are presently owned by ATI and have been owned by ATI for all times relevant hereto.

**ANSWER:**

Honda denies that all of the patents set forth in paragraph 8, a-1, are valid. Honda is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 9, and therefore denies these allegations.

10. The general subjects covered by the ATI Patents include, but are not limited to occupant sensing, position sensing, weight sensing, airbag deployment, and related systems as used in a vehicle containing airbags.

**ANSWER:**

Honda admits that some of the subjects identified in paragraph 10 are addressed in some of the ATI Patents. Honda is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 10, and therefore denies these allegations.

11. Among the products made, sold, used, or imported by Elesys are the following:

- a. "Passenger Sensing System";
- b. "Seat Sentry System";
- c. "Occupant Detection System"; and
- d. "Low Risk Deployment System".

**ANSWER:**

Honda admits that Elesys North America, Inc. ("ENA") has supplied to Honda, through third-parties, electronic control units ("ECUs") that are used in the Occupant Detection System. Honda is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 11, and therefore denies the allegations.

12. Elesys sells some or all of the above systems, either singularly or in combination, to Defendants Honda and GM. Upon information and belief, Elesys has supplied Honda since approximately 2001. Upon information and belief, Elesys has supplied GM since 2004. Elesys has recently announced the intention to supply the product systems, or some of them, to approximately 1.1 million additional GM vehicles.

**ANSWER:**

Honda admits that ENA has supplied to Honda, through third-parties, the ECUs that are used in the Occupant Detection System since 2005. Honda is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 12, and therefore denies the remaining allegations.

13. All of the product systems referenced above infringe, directly or by contributory infringement, the ATI Patents. None of the Defendants has any right or license from ATI under the ATI Patents.

**ANSWER:**

Honda admits that Honda has no license from ATI under the ATI Patents. Honda denies the remaining allegations in paragraph 13.

14. Defendant Honda makes, uses, imports and/or sells vehicles with an occupant position detection system called Occupant Position Detection System ("OPDS") in various model Hondas and Acuras sold in the United States. The OPDS system may vary slightly from model to model, but on information and belief, contains the Elesys Passenger Sensing System, the Occupant Detection System, the Seat Sentry and/or the Low Risk Deployment System (since 2006). Certain portions of the OPDS system are supplied by other automotive suppliers. Among the variations of the OPDS system used in Honda and Acura vehicles is a system employing a strain gage weight sensor and/or seat belt sensors. The OPDS system comprises and controls, or works in conjunction with a controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief, the OPDS system has been used in the following models:

Year	Model
2002	Honda Accord
2003	Honda Accord
2003	Honda Civic Hybrid
2004	Honda Accord
2005	Honda Odyssey
2005	Honda Pilot
2005	Honda Accord Hybrid

Year	Model
2005	Honda Accord
2005	Honda Element
2006	Honda Element
2006	Honda Accord
2006	Honda CRV
2006	Honda Ridgeline
2006	Honda Civic
2006	Honda Accord Hybrid

Year	Model
2001	Acura MDX
2002	Acura MDX
2002	Acura 3.2 CL
2003	Acura TL
2003	Acura MDX
2004	Acura TL
2004	Acura MDX

2005	Acura TL
2005	Acura MDX
2006	Acura TSX
2006	Acura TL
2006	Acura RL
2006	Acura MDX

**ANSWER:**

Honda admits that it imported certain vehicles listed in the tables of paragraph 14 in the United States. Honda admits that it sold in the United States vehicles listed in the tables of paragraph 14. Honda admits that ENA has supplied to Honda, through third-parties, the ECUs that are used in the Occupant Position Detection System ("the OPDS"). Honda admits that the sensors for the OPDS have been provided, through third-parties, by a supplier other than ENA. Honda admits that the OPDS is for use with a side airbag system. Honda admits that the OPDS has been used in the following vehicle models: 2002, 2003 and 2004 Honda Accord as an option, 2005 Honda Odyssey, 2005 Honda Pilot, 2005 Honda Accord Hybrid, 2005 Honda Accord, 2005 and 2006 Honda Element as an option, 2006 Honda CRV, 2006 Honda Accord Hybrid, 2001, 2002, 2003, 2004, 2005 and 2006 Accura MDX, 2002 Accura 3.2.CL, 2003, 2004, 2005 and 2006 Accura TL, and 2006 Accura RL. Honda denies the remaining allegations in paragraph 14.

15. Upon information and belief, additional Honda and Acura models to those listed in paragraph 14 have been equipped with the OPDS system, and continue to be sold in the United States with the OPDS system.

**ANSWER:**

Honda admits that certain Honda and Acura vehicles having the OPDS are not listed in the tables of paragraph 14. Honda denies the remaining allegations in paragraph 15.

16. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents.



**ANSWER:**

Honda denies that any Honda or Acura model vehicle, or any system used therein, infringes the ATI Patents. Honda is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 16, and therefore denies the remaining allegations.

17. Defendant Honda markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

**ANSWER:**

Honda admits that Honda markets and sells to the public the models identified in the tables of paragraph 14. Honda denies the remaining allegations of paragraph 17.

18. Defendant GM makes, uses, and sells vehicles which employ some or all of the Elesys product systems set forth above in paragraph 11, called in some instance, the Passenger Presence System. Certain GM vehicles use the Elesys systems in conjunction with seatbelt sensors. The Elesys system in GM vehicles comprises and controls, or works in conjunction with a controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief the Elesys systems are supplied in the following GM vehicles:

Year	Model
2005	Pontiac G6
2006	Pontiac G6
2005	Pontiac Grand Prix
2006	Pontiac Grand Prix
2005	Saturn Ion
2006	Saturn Ion
2005	Saturn Vue
2006	Saturn Vue
2005	Buick LaCrosse
2006	Buick LaCrosse

**ANSWER:**

Honda is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 18, and therefore denies the allegations.

19. Upon information and belief, GM makes and sells other models than those listed in Paragraph 17 [sic, 18] with the Passenger Presence System or other-named system using Elesys products. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents set forth in paragraph 8, with the exception of the '387, '451, '414, and '701 Patents. Defendant GM markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

**ANSWER:**

Honda is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 19, and therefore denies the allegations.

20. At least as early as February, 2004, ATI advised elesys of the existence of various of the above-listed patents and sought to discuss the license of the ATI Patents to elesys. Elesys was formed as a joint venture between Defendant Honda and a third-party, NEC, Inc., another automotive supplier. Upon information and belief, as of February, 2004, Honda had knowledge of various of the ATI patents at issue in this case. Additionally, certain of the patents at issue in this action have been actually known to NEC and Honda, Japan, earlier than February, 2004.

**ANSWER:**

Honda denies that ENA was formed as a joint venture between Honda and NEC, Inc. ENA is wholly owned by Honda elesys Co., Ltd., which is a joint venture between Honda Motor Co., Ltd. and NEC, Inc. Honda denies that it had knowledge of "various of the ATI patents at issue in this case" as of February 2004. Honda is without knowledge or information sufficient to form a belief to the truth of the remaining allegations in paragraph 20, and therefore denies these allegations.

21. In addition to the above, beginning in October, 2005, ATI placed Honda on notice of certain patents at issue in this lawsuit via written communications with Koichi Kondo, William R. Willen, of Honda, and Takeo Oi, Intellectual Property Division of Honda Motor Company, Ltd. in Japan. As a result, Honda has known of certain if not all of the patents at issue in this case prior to this Complaint.

**ANSWER:**

Honda admits that ATI sent Koichi Kondo and William R. Willen, respectively, letters dated October 14, 2005, with respect to the '701 patent. Honda admits that ATI sent Takeo Oi,

Manager of Intellectual Property Division of Honda Motor Co., Ltd. in Japan a letter dated January 26, 2006, with respect to the '701, the '978, the '414, the '136, the '595, the '100, the '602, the '387, the '248, the '451, and the '080 patents. Honda admits that it had knowledge of the '701 prior to ATI's Complaint. Honda denies the remaining allegations in paragraph 21.

#### **AFFIRMATIVE DEFENSES**

Further responding to ATI's First Amended Complaint, Honda asserts the following affirmative defenses and reserves the right to amend its Answer as additional information becomes available:

1. ATI's claims are barred by laches and estoppel.
2. Honda incorporates by reference as affirmative defenses the allegations set forth below supporting its Counterclaims.

#### **COUNTERCLAIMS**

For its Counterclaims against ATI, Honda states as follows:

1. This Court has jurisdiction over these Counterclaims pursuant to Rule 13, Fed. R. Civ. P. Jurisdiction in this Court also is proper pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202. Venue is proper for these Counterclaims because ATI elected this forum for suit and pursuant to 28 U.S.C. §§ 1391(c) and 1400(b). Pursuant to 28 U.S.C. § 1404(a), venue is also proper in the United States District Court for the Eastern District of Michigan.
2. An actual controversy exists between the parties as to the asserted infringement, validity, and enforceability of the ATI Patents.
3. An actual controversy exists between the parties as to the asserted infringement, validity, and enforceability of U.S. Patent No. 6,950,022 ("the '022 Patent"). ATI asserted the

infringement, validity and enforceability of the '022 Patent in the Complaint and removed the assertions based on the '022 Patent in the First Amended Complaint.

**FIRST COUNTERCLAIM**

**DECLARATION OF NONINFRINGEMENT OF THE ATI PATENTS**

3. Honda repeats and realleges the allegations of paragraphs 1 through 2 of these Counterclaims.

4. Honda has not infringed and is not infringing, either directly, contributorily, or by active inducement, any claim of the ATI Patents.

**SECOND COUNTERCLAIM**

**DECLARATION OF INVALIDITY OF THE ATI PATENTS**

5. Honda repeats and realleges the allegations of paragraphs 1 through 2 of these Counterclaims.

6. The ATI Patents are invalid and void for failure to comply with the requirements of Title 35, United States Code, including, but not limited to, §§ 102, 103, and 112.

**THIRD COUNTERCLAIM**

**DECLARATION OF NONINFRINGEMENT OF U.S. PATENT NO. 6,950,022**

7. Honda repeats and realleges the allegations of paragraphs 1 and 3 of these Counterclaims.

8. Honda has not infringed and is not infringing, either directly, contributorily, or by active inducement, any claim of the '022 Patent.

**FOURTH COUNTERCLAIM**

**DECLARATION OF INVALIDITY OF U.S. PATENT NO. 6,950,022**

9. Honda repeats and realleges the allegations of paragraphs 1 and 3 of these Counterclaims.

10. The '022 Patent is invalid and void for failure to comply with the requirements of Title 35, United States Code, including, but not limited to, §§ 102, 103, and 112.

**EXCEPTIONAL CASE**

ATI's attempt to read the claims of the ATI Patents on the activities and products of Honda makes this case exceptional under 35 U.S.C. § 285.

**PRAYER FOR RELIEF**

**WHEREFORE**, Honda prays for a judgment:

- a) dismissing ATI's First Amended Complaint with prejudice;
- b) declaring that Honda has not infringed any claim of the ATI Patents and the '022 Patent;
- c) declaring that the ATI patents and the '022 Patent are invalid;
- d) adjudging this case to be an exceptional case pursuant to 35 U.S.C. § 285, and awarding Honda its costs and attorneys' fees; and
- e) granting such other and further relief as the Court may deem just and proper.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

*/s/ Thomas C. Grimm*

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*Attorneys for Defendants*

June 12, 2006  
524397

**CERTIFICATE OF SERVICE**

I hereby certify that on June 12, 2006, I electronically filed the foregoing document with the Clerk of the Court using CM/ECF which will send notification of such filing to the following:

Richard K. Herrmann, Esquire  
MORRIS, JAMES, HITCHENS & WILLIAMS LLP

Additionally, I hereby certify that true and correct copies of the foregoing were caused to be served on June 12, 2006 upon the following individuals in the manner indicated:

**BY HAND**

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MORRIS, JAMES, HITCHENS & WILLIAMS LLP  
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/s/ Thomas C. Grimm  
Thomas C. Grimm (#1098)  
tgrimm@mnat.com

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

AUTOMOTIVE TECHNOLOGIES  
INTERNATIONAL, INC.,

Plaintiff,

v.

AMERICAN HONDA MOTOR CO., INC.,  
ELESYS NORTH AMERICA, INC., and  
GENERAL MOTORS CORPORATION,

Defendants.

Civil Action No. 06-187-GMS

**ANSWER, AFFIRMATIVE DEFENSES, AND COUNTERCLAIMS OF  
ELESYS NORTH AMERICAN, INC.**

Pursuant to Fed. R. Civ. P. 8 and 12, Defendant Elesys North American, Inc. ("ENA") answers the First Amended Complaint of Automotive Technologies International, Inc. ("ATI") as follows:

**PARTIES, JURISDICTION AND VENUE**

1. Plaintiff Automotive Technologies International, Inc. ("ATI") is a Delaware corporation.

**ANSWER:**

Admitted.

2. Defendant American Honda Motor Company ("Honda") is a California corporation. Defendant Honda imports and sells in the United States automobiles manufactured in Japan and the United States under the "Honda" and "Acura" names.

**ANSWER:**

ENA is without knowledge or information sufficient to form a belief as to the truth of allegations in paragraph 2, and therefore denies these allegations.

3. Defendant Elesys North America, Inc. ("Elesys") is a Georgia corporation. Elesys is a supplier of products to the automotive industry.

**ANSWER:**

ENA admits that it is a Georgia corporation. ENA admits that it is a supplier of specific products to certain companies in the automotive industry. ENA denies the remaining allegations of paragraph 3.

4. Defendant General Motors Corporation ("GM") is a Delaware corporation. GM sells vehicles in the United States under the "Buick," "Pontiac," and "Saturn" names, among others.

**ANSWER:**

ENA is without knowledge or information sufficient to form a belief as to the truth of allegations in paragraph 4, and therefore denies these allegations.

5. This is an action for patent infringement. All of the acts of patent infringement complained of in this Complaint occurred, among other places, within this judicial district.

**ANSWER:**

ENA admits that this purports to be an action for alleged patent infringement. ENA denies the remaining allegations of paragraph 5.

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1338(a) and 28 U.S.C. § 1331 over this infringement action, arising under the Patent Act, 35 U.S.C. § 1 et seq., including §§ 271 and 281-285.

**ANSWER:**

Admitted.



7. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b), (c) and 28 U.S.C. § 1400(b). The Court has personal jurisdiction over each of the parties.

**ANSWER:**

Admitted. Pursuant to 28 U.S.C. § 1404(a), however, venue is most proper in the United States District Court for the Eastern District of Michigan.

**GENERAL ALLEGATIONS**

8. The following patents have been issued duly and legally to Plaintiff ATI on the following dates:

- a. U.S. Patent No. 5,901,978 entitled "Method and Apparatus for Detecting the Presence of a Child Seat," issued May 11, 1999. (Exhibit 1)
- b. U.S. Patent No. 6,242,701 entitled "Apparatus and Method for Measuring Weight of an Occupying Item of a Seat," issued June 5, 2001. (Exhibit 2)
- c. U.S. Patent No. 6,325,414 entitled "Method and Arrangement for Controlling Deployment of a Side Airbag," issued December 4, 2001. (Exhibit 3)
- d. U.S. Patent No. 6,397,136 entitled "System for Determining the Occupancy State of a Seat in a Vehicle," issued May 28, 2002. (Exhibit 4)
- e. U.S. Patent No. 6,422,595 entitled "Occupant Position Sensor and Method and Arrangement for Controlling a Vehicular Component Based on an Occupant's Position," issued July 23, 2002. (Exhibit 5)
- f. U.S. Patent No. 6,869,100 entitled "Method and Apparatus for Controlling an Airbag," issued March 22, 2005. (Exhibit 6)
- g. U.S. Patent No. 6,757,602 entitled "System For Determining the Occupancy State of a Seat in a Vehicle and Controlling a Component Based Thereon," issued June 29, 2004. (Exhibit 7)
- h. U.S. Patent No. 6,712,387 entitled "Method and Apparatus for Controlling Deployment of a Side Airbag," issued March 30, 2004. (Exhibit 8)
- i. U.S. Patent No. 6,942,248 entitled "Occupant Restraint Device Control System and Method," issued September 13, 2005. (Exhibit 9)

- j. U.S. Patent No. 6,958,451 entitled "Apparatus and Method for Measuring Weight of an Occupying Item of a Seat," issued October 25, 2005. (Exhibit 10)
- k. U.S. Patent No. 6,484,080 entitled "Method and Apparatus for Controlling a Vehicular Component," issued November 19, 2002. (Exhibit 11)
- l. U.S. Patent No. 6,850,824 entitled "Method and Apparatus for Controlling a Vehicular Component," issued February 1, 2005. (Exhibit 12)

**ANSWER:**

ENA admits that U.S. Patent Nos. 5,901,978, 6,242,701, 6,325,414, 6,397,136, 6,422,595, 6,869,100, 6,757,602, 6,712,387, 6,942,248, 6,958,451, 6,484,080 and 6,850,824 ("the ATI Patents") are attached to the Plaintiff's First Amended Complaint as Exhibits 1-12, respectively. ENA admits that ATI is the listed assignee on the face of the ATI Patents. ENA admits that the ATI Patents have titles of inventions and the issue dates identified in paragraph 8, a-1. ENA is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 8, and on that basis, denies these allegations.

**PATENT INFRINGEMENT**

9. All of the patents set forth in paragraph 8, a-1 (collectively, "the ATI Patents"), are valid, subsisting, enforceable, and are presently owned by ATI and have been owned by ATI for all times relevant hereto.

**ANSWER:**

ENA denies that all of the patents set forth in paragraph 8, a-1, are valid. ENA is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 9, and therefore denies these allegations.

10. The general subjects covered by the ATI Patents include, but are not limited to occupant sensing, position sensing, weight sensing, airbag deployment, and related systems as used in a vehicle containing airbags.

**ANSWER:**

ENA admits that some of the subjects identified in paragraph 10 are addressed in some of the ATI Patents. ENA is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 10, and therefore denies these allegations.

11. Among the products made, sold, used, or imported by Elesys are the following:
  - a. "Passenger Sensing System";
  - b. "Seat Sentry System";
  - c. "Occupant Detection System"; and
  - d. "Low Risk Deployment System".

**ANSWER:**

ENA admits that ENA made and sold the electronic control units ("ECUs") and sensor assemblies for the Passenger Sensing System and has imported and sold the ECUs that are used in the Occupant Detection System. The Passenger Sensing System was previously referred to as the Seat Sentry System. ENA admits that ENA has made the Low Risk Deployment System. ENA denies the remaining allegations in paragraph 11.

12. Elesys sells some or all of the above systems, either singularly or in combination, to Defendants Honda and GM. Upon information and belief, Elesys has supplied Honda since approximately 2001. Upon information and belief, Elesys has supplied GM since 2004. Elesys has recently announced the intention to supply the product systems, or some of them, to approximately 1.1 million additional GM vehicles.

**ANSWER:**

ENA admits that it has sold to GM on a commercial scale the ECUs and the sensor assemblies for the Passenger Sensing System since 2004. ENA admits that it has sold to Honda, through third-parties, the ECUs that are used in the Occupant Detection System since 2005. ENA denies the remaining allegations in paragraph 12.

13. All of the product systems referenced above infringe, directly or by contributory infringement, the ATI Patents. None of the Defendants has any right or license from ATI under the ATI Patents.

**ANSWER:**

ENA admits that ENA has no license from ATI under the ATI Patents. ENA denies the remaining allegations in paragraph 13.

14. Defendant Honda makes, uses, imports and/or sells vehicles with an occupant position detection system called Occupant Position Detection System ("OPDS") in various model Hondas and Acuras sold in the United States. The OPDS system may vary slightly from model to model, but on information and belief, contains the Elesys Passenger Sensing System, the Occupant Detection System, the Seat Sentry and/or the Low Risk Deployment System (since 2006). Certain portions of the OPDS system are supplied by other automotive suppliers. Among the variations of the OPDS system used in Honda and Acura vehicles is a system employing a strain gage weight sensor and/or seat belt sensors. The OPDS system comprises and controls, or works in conjunction with a controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief, the OPDS system has been used in the following models:

Year	Model
2002	Honda Accord
2003	Honda Accord
2003	Honda Civic Hybrid
2004	Honda Accord
2005	Honda Odyssey
2005	Honda Pilot
2005	Honda Accord Hybrid

Year	Model
2005	Honda Accord
2005	Honda Element
2006	Honda Element
2006	Honda Accord
2006	Honda CRV
2006	Honda Ridgeline
2006	Honda Civic
2006	Honda Accord Hybrid

Year	Model
2001	Acura MDX
2002	Acura MDX
2002	Acura 3.2 CL

2003	Acura TL
2003	Acura MDX
2004	Acura TL
2004	Acura MDX
2005	Acura TL
2005	Acura MDX
2006	Acura TSX
2006	Acura TL
2006	Acura RL
2006	Acura MDX

**ANSWER:**

ENA admits that it has sold to Honda, through third parties, ECUs that are used in the Occupant Position Detection System ("OPDS"). ENA denies that the OPDS contains the Elesys Passenger Sensing System, the Occupant Detection System, the Seat Sentry System and/or the Low Risk Deployment System. ENA is without information or knowledge sufficient to form a belief as to the truth of the remaining allegations in paragraph 14, and therefore denies these allegations.

15. Upon information and belief, additional Honda and Acura models to those listed in paragraph 14 have been equipped with the OPDS system, and continue to be sold in the United States with the OPDS system.

**ANSWER:**

ENA is without information or knowledge sufficient to form a belief as to the truth of allegations in paragraph 15, and therefore denies these allegations.

16. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents.

**ANSWER:**

ENA denies that any product made, sold, offered for sale or used by ENA infringes the ATI Patents. ENA is without information or knowledge sufficient to form a belief as to the truth of the remaining allegations in paragraph 16, and therefore denies these allegations.

17. Defendant Honda markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

**ANSWER:**

ENA is without information or knowledge sufficient to form a belief as to the truth of allegations in paragraph 17, and therefore denies these allegations.

18. Defendant GM makes, uses, and sells vehicles which employ some or all of the Elesys product systems set forth above in paragraph 11, called in some instance, the Passenger Presence System. Certain GM vehicles use the Elesys systems in conjunction with seatbelt sensors. The Elesys system in GM vehicles comprises and controls, or works in conjunction with a controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief the Elesys systems are supplied in the following GM vehicles:

Year	Model
2005	Pontiac G6
2006	Pontiac G6
2005	Pontiac Grand Prix
2006	Pontiac Grand Prix
2005	Saturn Ion
2006	Saturn Ion
2005	Saturn Vue
2006	Saturn Vue
2005	Buick LaCrosse
2006	Buick LaCrosse

**ANSWER:**

ENA admits that it has sold to GM the ECUs and the sensor assemblies for the Passenger Sensing System. ENA is without information or knowledge sufficient to form a belief as to the truth of the remaining allegations in paragraph 18, and therefore denies these allegations.

19. Upon information and belief, GM makes and sells other models than those listed in Paragraph 17 [sic, 18] with the Passenger Presence System or other-named system using Elesys products. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents set forth in paragraph 8, with the exception of the '387, '451, '414, and '701 Patents. Defendant GM markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

**ANSWER:**

ENA denies that any product made, sold, offered for sale or used by ENA infringes the ATI Patents. ENA is without information or knowledge sufficient to form a belief as to the truth of the remaining allegations in paragraph 19, and therefore denies these allegations.

20. At least as early as February, 2004, ATI advised Elesys of the existence of various of the above-listed patents and sought to discuss the license of the ATI Patents to Elesys. Elesys was formed as a joint venture between Defendant Honda and a third-party, NEC, Inc., another automotive supplier. Upon information and belief, as of February, 2004, Honda had knowledge of various of the ATI patents at issue in this case. Additionally, certain of the patents at issue in this action have been actually known to NEC and Honda, Japan, earlier than February, 2004.

**ANSWER:**

ENA admits that in or about February 2004, ATI advised ENA of the existence of various patents and published patent applications allegedly owned by ATI and sought to discuss licensing of these patents to ENA. The patents that ATI advised ENA of included the '978, the '414, the '136, and the '595 patents. The published patent applications that ATI advised ENA of included US 2003/0001368 (which later matured into the '100 patent), US 2003/0002690 (which later matured into the '022), and US2003/0056997 (which later matured into the '451 patent). ENA denies that ENA was formed as a joint venture between Honda and NEC, Inc. ENA is wholly owned by Honda elesys Co., Ltd., which is a joint venture between Honda Motor Co., Ltd. and NEC, Inc. ENA is without information or knowledge sufficient to form a belief as to the truth of the remaining allegations in paragraph 20, and therefore denies the allegations.

21. In addition to the above, beginning in October, 2005, ATI placed Honda on notice of certain patents at issue in this lawsuit via written communications with Koichi Kondo, William R. Willen, of Honda, and Takeo Oi, Intellectual Property Division of Honda Motor Company, Ltd. in Japan. As a result, Honda has known of certain if not all of the patents at issue in this case prior to this Complaint.

**ANSWER:**

ENA is without information or knowledge sufficient to form a belief as to the truth of allegations in paragraph 21, and therefore denies these allegations.

**AFFIRMATIVE DEFENSES**

Further responding to ATI's First Amended Complaint, ENA asserts the following affirmative defenses and reserves the right to amend its Answer as additional information becomes available:

1. ATI's claims are barred by laches and estoppel.
2. ENA incorporates by reference as affirmative defenses the allegations set forth below supporting its Counterclaims.

**COUNTERCLAIMS**

For its Counterclaims against ATI, ENA states as follows:

1. This Court has jurisdiction over these Counterclaims pursuant to Rule 13, Fed. R. Civ. P. Jurisdiction in this Court also is proper pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202. Venue is proper for these Counterclaims because ATI elected this forum for suit and pursuant to 28 U.S.C. §§ 1391(c) and 1400(b). Pursuant to 28 U.S.C. § 1404(a), venue is also proper in the United States District Court for the Eastern District of Michigan.
2. An actual controversy exists between the parties as to the asserted infringement, validity, and enforceability of the ATI Patents.
3. An actual controversy exists between the parties as to the asserted infringement, validity, and enforceability of U.S. Patent No. 6,950,022 ("the '022 Patent"). ATI asserted the infringement the '022 Patent in the Complaint based on ENA's supply to Honda and GM and removed the assertions based on the '022 Patent in the First Amended Complaint.



4. An actual controversy exists between the parties based on ENA's supply to GM as to the asserted infringement of U.S. Patent Nos. 6,712,387 ("the '387 Patent"), 6,958,451 ("the '451 Patent"), 6,325,414 ("the '414 Patent"), and 6,242,701 ("the '701 Patent"). ATI asserted that ENA's supply to GM infringes the '387, '451, '414, and '701 Patents in the Complaint. ATI removed these assertions in the First Amended Complaint.

#### **FIRST COUNTERCLAIM**

##### **DECLARATION OF NONINFRINGEMENT OF THE ATI PATENTS**

3. ENA repeats and realleges the allegations of paragraphs 1, 2 and 4 of these Counterclaims.

4. ENA has not infringed and is not infringing, either directly, contributorily, or by active inducement, any claim of the ATI Patents.

5. ENA has not infringed and is not infringing, either directly, contributorily, or by active inducement, any claim of the '387, '451, '414, or the '701 Patents by ENA's supply to GM.

#### **SECOND COUNTERCLAIM**

##### **DECLARATION OF INVALIDITY OF THE ATI PATENTS**

6. ENA repeats and realleges the allegations of paragraphs 1, 2 and 4 of these Counterclaims.

7. The ATI Patents are invalid and void for failure to comply with the requirements of Title 35, United States Code, including, but not limited to, §§ 102, 103, and 112.

#### **THIRD COUNTERCLAIM**

##### **DECLARATION OF NONINFRINGEMENT OF U.S. PATENT NO. 6,950,022**

8. ENA repeats and realleges the allegations of paragraphs 1 and 3 of these Counterclaims.

9. ENA has not infringed and is not infringing, either directly, contributorily, or by active inducement, any claim of the '022 Patent.

**FOURTH COUNTERCLAIM**

**DECLARATION OF INVALIDITY OF U.S. PATENT NO. 6,950,022**

10. ENA repeats and realleges the allegations of paragraphs 1 and 3 of these Counterclaims.

11. The '022 Patent is invalid and void for failure to comply with the requirements of Title 35, United States Code, including, but not limited to, §§ 102, 103, and 112.

**EXCEPTIONAL CASE**

ATI's attempt to read the claims of the patents-in-suit on the activities and products of ENA makes this case exceptional under 35 U.S.C. § 285.

**PRAYER FOR RELIEF**

**WHEREFORE**, ENA prays for a judgment:

- a) dismissing ATI's First Amended Complaint with prejudice;
- b) declaring that ENA has not infringed any claim of the ATI Patents and the '022 Patent;
- c) declaring that ENA has not infringed any claim of the '387, '451, '414, and '701 Patents by ENA's supply to GM;
- d) declaring that the ATI Patents and the '022 Patent are invalid;
- e) adjudging this case to be an exceptional case pursuant to 35 U.S.C. § 285, and awarding ENA its costs and attorneys' fees; and
- f) granting such other and further relief as the Court may deem just and proper.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Thomas C. Grimm

---

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June 12, 2006  
524383

**CERTIFICATE OF SERVICE**

I hereby certify that on June 12, 2006, I electronically filed the foregoing document with the Clerk of the Court using CM/ECF which will send notification of such filing to the following:

Richard K. Herrmann, Esquire  
MORRIS, JAMES, HITCHENS & WILLIAMS LLP

Additionally, I hereby certify that true and correct copies of the foregoing were caused to be served on June 12, 2006 upon the following individuals in the manner indicated:

**BY HAND**

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/s/ Thomas C. Grimm  
Thomas C. Grimm (#1098)  
tgrimm@mnat.com

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

AUTOMOTIVE TECHNOLOGIES	)	
INTERNATIONAL, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No. 06-187-GMS
	)	
AMERICAN HONDA MOTOR CO., INC.,	)	
ELESYS NORTH AMERICA, INC., and	)	
GENERAL MOTORS CORPORATION,	)	
	)	
Defendants.	)	

**ANSWER, AFFIRMATIVE DEFENSES, AND COUNTERCLAIMS OF  
GENERAL MOTORS CORPORATION**

Pursuant to Fed. R. Civ. P. 8 and 12, Defendant General Motors Corporation ("GM") answers the First Amended Complaint of Automotive Technologies International, Inc. ("ATT") as follows:

**PARTIES, JURISDICTION AND VENUE**

1. Plaintiff Automotive Technologies International, Inc. ("ATT") is a Delaware corporation.

**ANSWER:**

Admitted.

2. Defendant American Honda Motor Company ("Honda") is a California corporation. Defendant Honda imports and sells in the United States automobiles manufactured in Japan and the United States under the "Honda" and "Acura" names.

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of allegations in paragraph 2, and therefore denies these allegations.

3. Defendant Elesys North America, Inc. ("Elesys") is a Georgia corporation. Elesys is a supplier of products to the automotive industry.

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of allegations in paragraph 3, and therefore denies these allegations.

4. Defendant General Motors Corporation ("GM") is a Delaware corporation. GM sells vehicles in the United States under the "Buick," "Pontiac," and "Saturn" names, among others.

**ANSWER:**

Admitted.

5. This is an action for patent infringement. All of the acts of patent infringement complained of in this Complaint occurred, among other places, within this judicial district.

**ANSWER:**

GM admits that this purports to be an action for alleged patent infringement. GM denies the remaining allegations of paragraph 5.

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1338(a) and 28 U.S.C. § 1331 over this infringement action, arising under the Patent Act, 35 U.S.C. § 1 et seq., including §§ 271 and 281-285.

**ANSWER:**

Admitted.

7. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b), (c) and 28 U.S.C. § 1400(b). The Court has personal jurisdiction over each of the parties.

**ANSWER:**

Admitted. Pursuant to 28 U.S.C. § 1404(a), however, venue is most proper in the United States District Court for the Eastern District of Michigan.

**GENERAL ALLEGATIONS**

8. The following patents have been issued duly and legally to Plaintiff ATI on the following dates:

- a. U.S. Patent No. 5,901,978 entitled "Method and Apparatus for Detecting the Presence of a Child Seat," issued May 11, 1999. (Exhibit 1)
- b. U.S. Patent No. 6,242,701 entitled "Apparatus and Method for Measuring Weight of an Occupying Item of a Seat," issued June 5, 2001. (Exhibit 2)
- c. U.S. Patent No. 6,325,414 entitled "Method and Arrangement for Controlling Deployment of a Side Airbag," issued December 4, 2001. (Exhibit 3)
- d. U.S. Patent No. 6,397,136 entitled "System for Determining the Occupancy State of a Seat in a Vehicle," issued May 28, 2002. (Exhibit 4)
- e. U.S. Patent No. 6,422,595 entitled "Occupant Position Sensor and Method and Arrangement for Controlling a Vehicular Component Based on an Occupant's Position," issued July 23, 2002. (Exhibit 5)
- f. U.S. Patent No. 6,869,100 entitled "Method and Apparatus for Controlling an Airbag," issued March 22, 2005. (Exhibit 6)
- g. U.S. Patent No. 6,757,602 entitled "System For Determining the Occupancy State of a Seat in a Vehicle and Controlling a Component Based Thereon," issued June 29, 2004. (Exhibit 7)
- h. U.S. Patent No. 6,712,387 entitled "Method and Apparatus for Controlling Deployment of a Side Airbag," issued March 30, 2004. (Exhibit 8)
- i. U.S. Patent No. 6,942,248 entitled "Occupant Restraint Device Control System and Method," issued September 13, 2005. (Exhibit 9)
- j. U.S. Patent No. 6,958,451 entitled "Apparatus and Method for Measuring Weight of an Occupying Item of a Seat," issued October 25, 2005. (Exhibit 10)
- k. U.S. Patent No. 6,484,080 entitled "Method and Apparatus for Controlling a Vehicular Component," issued November 19, 2002. (Exhibit 11)

1. U.S. Patent No. 6,850,824 entitled "Method and Apparatus for Controlling a Vehicular Component," issued February 1, 2005. (Exhibit 12)

**ANSWER:**

GM admits that U.S. Patent Nos. 5,901,978, 6,242,701, 6,325,414, 6,397,136, 6,422,595, 6,869,100, 6,757,602, 6,712,387, 6,942,248, 6,958,451, 6,484,080 and 6,850,824 ("the ATI Patents") are attached to the Plaintiff's First Amended Complaint as Exhibits 1-12, respectively. GM admits that ATI is the listed assignee on the face of the ATI Patents. GM admits that the ATI Patents have titles of inventions and the issue dates identified in paragraph 8, a-1. GM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 8, and therefore denies the remaining allegations.

**PATENT INFRINGEMENT**

9. All of the patents set forth in paragraph 8, a-1 (collectively, "the ATI Patents"), are valid, subsisting, enforceable, and are presently owned by ATI and have been owned by ATI for all times relevant hereto.

**ANSWER:**

GM denies that all of the patents set forth in paragraph 8, a-1 are valid. GM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 9, and therefore denies these allegations.

10. The general subjects covered by the ATI Patents include, but are not limited to occupant sensing, position sensing, weight sensing, airbag deployment, and related systems as used in a vehicle containing airbags.

**ANSWER:**

GM admits that some of the subjects identified in paragraph 10 are addressed in some of the ATI Patents. GM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 10, and therefore denies these allegations.



11. Among the products made, sold, used, or imported by Elesys are the following:

- a. "Passenger Sensing System";
- b. "Seat Sentry System";
- c. "Occupant Detection System"; and
- d. "Low Risk Deployment System".

**ANSWER:**

GM admits that Elesys North America, Inc. (ENA) sold the electronic control units ("ECUs") and sensor assemblies for the Passenger Sensing System to GM. GM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 11, and therefore denies these allegations.

12. Elesys sells some or all of the above systems, either singularly or in combination, to Defendants Honda and GM. Upon information and belief, Elesys has supplied Honda since approximately 2001. Upon information and belief, Elesys has supplied GM since 2004. Elesys has recently announced the intention to supply the product systems, or some of them, to approximately 1.1 million additional GM vehicles.

**ANSWER:**

GM admits that ENA has sold the ECUs and the sensor assemblies for the Passenger Sensing System to GM since at least 2004. GM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in paragraph 12, and therefore denies these allegations.

13. All of the product systems referenced above infringe, directly or by contributory infringement, the ATI Patents. None of the Defendants has any right or license from ATI under the ATI Patents.

**ANSWER:**

GM admits that GM has no license from ATI under the ATI Patents. GM denies the remaining allegations in paragraph 13.

14. Defendant Honda makes, uses, imports and/or sells vehicles with an occupant position detection system called Occupant Position Detection System ("OPDS") in various model Hondas and Acuras sold in the United States. The OPDS system may vary slightly from model to model, but on information and belief, contains the Elesys Passenger Sensing System, the Occupant Detection System, the Seat Sentry and/or the Low Risk Deployment System (since 2006). Certain portions of the OPDS system are supplied by other automotive suppliers. Among the variations of the OPDS system used in Honda and Acura vehicles is a system employing a strain gage weight sensor and/or seat belt sensors. The OPDS system comprises and controls, or works in conjunction with a controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief, the OPDS system has been used in the following models:

Year	Model
2002	Honda Accord
2003	Honda Accord
2003	Honda Civic Hybrid
2004	Honda Accord
2005	Honda Odyssey
2005	Honda Pilot
2005	Honda Accord Hybrid

Year	Model
2005	Honda Accord
2005	Honda Element
2006	Honda Element
2006	Honda Accord
2006	Honda CRV
2006	Honda Ridgeline
2006	Honda Civic
2006	Honda Accord Hybrid

Year	Model
2001	Acura MDX
2002	Acura MDX
2002	Acura 3.2 CL
2003	Acura TL
2003	Acura MDX
2004	Acura TL
2004	Acura MDX
2005	Acura TL
2005	Acura MDX
2006	Acura TSX
2006	Acura TL
2006	Acura RL
2006	Acura MDX

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 14, and therefore denies these allegations.

15. Upon information and belief, additional Honda and Acura models to those listed in paragraph 14 have been equipped with the OPDS system, and continue to be sold in the United States with the OPDS system.

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 15, and therefore denies these allegations.

16. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents.

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 16, and therefore denies these allegations.

17. Defendant Honda markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 17, and therefore denies these allegations.

18. Defendant GM makes, uses, and sells vehicles which employ some or all of the Elesys product systems set forth above in paragraph 11, called in some instance, the Passenger Presence System. Certain GM vehicles use the Elesys systems in conjunction with seatbelt sensors. The Elesys system in GM vehicles comprises and controls, or works in conjunction with a controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief the Elesys systems are supplied in the following GM vehicles:

Year	Model
2005	Pontiac G6
2006	Pontiac G6
2005	Pontiac Grand Prix
2006	Pontiac Grand Prix
2005	Saturn Ion
2006	Saturn Ion
2005	Saturn Vue
2006	Saturn Vue
2005	Buick LaCrosse
2006	Buick LaCrosse

**ANSWER:**

GM admits that GM made, used and sold vehicles containing the Passenger Sensing System. GM admits that the following vehicles employ the Passenger Sensing System: 2006 Pontiac G6, 2006 Pontiac Grand Prix, 2006 Saturn Ion, 2006 Saturn Vue, 2005 Buick LaCrosse and 2006 Buick LaCrosse. GM denies the remaining allegations of paragraph 18.

19. Upon information and belief, GM makes and sells other models than those listed in Paragraph 17 [sic, 18] with the Passenger Presence System or other-named system using Elesys products. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents set forth in paragraph 8, with the exception of the '387, '451, '414, and '701 Patents. Defendant GM markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

**ANSWER:**

GM admits that it marketed and sold to the public vehicles listed in the table of paragraph 18. GM denies the remaining allegations in paragraph 19.

20. At least as early as February, 2004, ATI advised Elesys of the existence of various of the above-listed patents and sought to discuss the license of the ATI Patents to Elesys. Elesys was formed as a joint venture between Defendant Honda and a third-party, NEC, Inc., another automotive supplier. Upon information and belief, as of February, 2004, Honda had knowledge of various of the ATI patents at issue in this case. Additionally, certain of the patents at issue in this action have been actually known to NEC and Honda, Japan, earlier than February, 2004.

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 20, and therefore denies these allegations.

21. In addition to the above, beginning in October, 2005, ATI placed Honda on notice of certain patents at issue in this lawsuit via written communications with Koichi Kondo, William R. Willen, of Honda, and Takeo Oi, Intellectual Property Division of Honda Motor Company, Ltd. in Japan. As a result, Honda has known of certain if not all of the patents at issue in this case prior to this Complaint.

**ANSWER:**

GM is without knowledge or information sufficient to form a belief as to the truth of the allegations in paragraph 21, and therefore denies these allegations.

**AFFIRMATIVE DEFENSES**

Further responding to ATI's First Amended Complaint, GM asserts the following affirmative defenses and reserves the right to amend its Answer as additional information becomes available:

1. ATI's claims are barred by laches and estoppel.
2. GM incorporates by reference as affirmative defenses the allegations set forth below supporting its Counterclaims.

**COUNTERCLAIMS**

For its Counterclaims against ATI, GM states as follows:

1. This Court has jurisdiction over these Counterclaims pursuant to Rule 13, Fed. R. Civ. P. Jurisdiction in this Court also is proper pursuant to 28 U.S.C. §§ 1331, 1338(a), 2201, and 2202. Venue is proper for these Counterclaims because ATI elected this forum for suit and

pursuant to 28 U.S.C. §§ 1391(c) and 1400(b). Pursuant to 28 U.S.C. § 1404(a), venue is also proper in the United States District Court for the Eastern District of Michigan.

2. An actual controversy exists between the parties as to the asserted infringement, validity, and enforceability of the U.S. Patent Nos. 5,901,978, 6,397,136, 6,422,595, 6,869,100, 6,757,602, 6,942,248, 6,484,080, and 6,850,824 ("Patents-in-suit").

#### **FIRST COUNTERCLAIM**

##### **DECLARATION OF NONINFRINGEMENT OF THE PATENTS-IN-SUIT**

3. GM repeats and realleges the allegations of paragraphs 1 through 2 of these Counterclaims.

4. GM has not infringed and is not infringing, either directly, contributorily, or by active inducement, any claim of the Patents-in-suit.

#### **SECOND COUNTERCLAIM**

##### **DECLARATION OF INVALIDITY OF THE PATENTS-IN-SUIT**

5. GM repeats and realleges the allegations of paragraphs 1 through 2 of these Counterclaims.

6. The Patents-in-suit are invalid and void for failure to comply with the requirements of Title 35, United States Code, including, but not limited to, §§ 102, 103, and 112.

#### **EXCEPTIONAL CASE**

ATI's attempt to read the claims of the patents-in-suit on the activities and products of GM make this case exceptional under 35 U.S.C. § 285.

#### **PRAYER FOR RELIEF**

**WHEREFORE**, GM prays for a judgment:

- a) dismissing ATI's First Amended Complaint with prejudice;

- b) declaring that GM has not infringed any claim of the Patents-in-suit;
- c) declaring that the Patents-in-suit are invalid;
- d) adjudging this case to be an exceptional case pursuant to 35 U.S.C. § 285, and awarding GM its costs and attorney fees; and
- e) granting such other and further relief as the Court may deem just and proper.

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

*/s/ Thomas C. Grimm*

---

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June 12, 2006  
524384

**CERTIFICATE OF SERVICE**

I hereby certify that on June 12, 2006, I electronically filed the foregoing document with the Clerk of the Court using CM/ECF which will send notification of such filing to the following:

Richard K. Herrmann, Esquire  
MORRIS, JAMES, HITCHENS & WILLIAMS LLP

Additionally, I hereby certify that true and correct copies of the foregoing were caused to be served on June 12, 2006 upon the following individuals in the manner indicated:

**BY HAND**

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(312) 673-0361 (fax)

/s/ Thomas C. Grimm  
Thomas C. Grimm (#1098)  
tgrimm@mnat.com



# **EXHIBIT 2**

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

AUTOMOTIVE TECHNOLOGIES  
INTERNATIONAL, INC.,  
a Delaware corporation,

Case No. 1:06-CV-00187-GMS  
Hon. Judge Gregory M. Sleet

Plaintiff,

vs.

AMERICAN HONDA MOTOR COMPANY,  
a California corporation,  
ELESYS NORTH AMERICA, INC.,  
a Georgia corporation, and  
GENERAL MOTORS CORPORATION,  
a Delaware corporation,

Defendants.

---

**DECLARATION OF DAVID BREED**

I, David Breed, under penalty of perjury do testify as follows:

1. I am the Chairman and Chief Executive Officer of Plaintiff, ATI, Inc. I have a degree from Carlton College, a BA in physics, a Bachelors and Masters Degrees in mechanical engineering from MIT, a Masters Degree in industrial management from MIT, and a Ph.D. in mechanical engineering from Columbia University in 1972. While in school, beginning in the early 1960's, I began work with Breed Corporation, a company formed by my brother and myself. I worked at Breed Corporation on a full time basis from 1963 to 1988.

2. In the late 1960's Breed Corporation began being involved in developing automotive sensors. I am intimately familiar with the automotive safety sensor business.

3. When I left Breed Corporation in 1988, I acquired ATI to develop next-generation auto safety products. These included crash sensors for occupant restraint systems, other

occupant sensors, airbag designs, and related projects. I have over 150 issued patents in this field. While ATI has from time to time been involved in developing commercial products, the bulk of our work lies in research and patent development.

4. Since acquiring ATI, I have had the company primarily engaged in research and development towards automotive safety products. At various times the company has had a physical office in the Metropolitan Detroit area for convenience, to allow us to present talks and lectures to various automotive suppliers and manufacturers, as well as to conduct some of our prototype activities. However, towards the end of 2005, we made a decision to close that office, which was only staffed by one or two people, and to conduct our prototyping and research activities largely off-shore. For the past four or five years, ATI has employed on a consulting basis a variety of scientists in Ukraine. The bulk of our research activity, to the extent it has a physical location, has been conducted in Ukraine throughout this time.

5. I understand that references have been made in Defendants' motion to transfer regarding my ownership of a summer home in Pentwater, Michigan. First, I do not own that home, it is held in joint tenancy with a relative. Second, I use that home for brief summer vacations. Third, I may point out that the home is located in the Western District of Michigan. My primary residence is in Boonton Township, New Jersey.

6. All of the patents involved in this case were prosecuted by Brian Roffe, ATI's long-standing patent lawyer. Some of the initial applications that led to the patents-in-suit were prepared by Karl Milde. Mr. Roffe lives in the greater New York area, and Mr. Milde in Westchester County, New York.

7. All of our material business dealings with Autoliv, including our licenses with Autoliv, were with Autoliv's Swedish personnel, and took place in Sweden.

FURTHER AFFIANT SAYETH NOT.

A handwritten signature in black ink, appearing to read "D. S. Breed", written over a horizontal line.

DAVID S. BREED

June 20, 2006

# **EXHIBIT 3**

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

AUTOMOTIVE TECHNOLOGIES  
INTERNATIONAL, INC.,  
a Delaware corporation,

Case No. 1:06-CV-00187-GMS  
Hon. Judge Gregory M. Sleet

Plaintiff,

vs.

AMERICAN HONDA MOTOR COMPANY,  
a California corporation,  
ELESYS NORTH AMERICA, INC.,  
a Georgia corporation, and  
GENERAL MOTORS CORPORATION,  
a Delaware corporation,

Defendants.

---

**DECLARATION OF RAY PIIRAINEN**

I, Ray Piirainen, under penalty of perjury do testify as follows:

1. I am an employee of ATI, Inc. I've been employed by ATI since July 18, 1997. My duties for ATI include accounting and general administrative work. I am familiar with the operation of ATI and the facts set forth in this Declaration.

2. ATI currently has four employees worldwide. These include myself, my wife Nancy Piirainen (who also performs administrative duties), ATI's chairman and CEO David Breed, and a part-time employee hired in June of this year, who also lives in New Jersey. David Breed is located in Boonton, New Jersey. I and Nancy Piirainen are located outside Charlotte, North Carolina. To the extent that ATI has any one place in which its administrative business is conducted, it is here in North Carolina.

3. ATI is largely a research and development company, although from time to time it has developed commercialized prototypes and products. The bulk of its efforts, however are directed toward research and patenting that research. ATI conducts its business largely through consulting arrangements with various individuals. Some of these individuals have had long time relationships with ATI, which was started in 1988. The five consultants currently include the following: Will DuVall, one of the named inventors on the subject patents-in-suit, who is located in Branson West, Missouri. Another consultant for ATI is Wendell Johnson, who is located in Hawaii. Both DuVall and Johnson contractually act on behalf of ATI and will come to trial in Delaware unless health reasons interfere. Ryan Breed has been retained as of June 1, 2006 through September 2006 as a consultant. ATI also has two other consultants, both located in Kiev, Ukraine Republic.

4. In addition to formal retained consultants, ATI has business relationships with numerous other researchers and scientists. The majority of these scientists are located in the Ukraine. Others who have a relationship with ATI include Vittorio Castelli, who lives in Yorktown Heights, New York and in Rome, Italy.

5. ATI has no employees or other consultants, or other individuals with whom it has a business relationship, who reside in the Eastern District of Michigan.

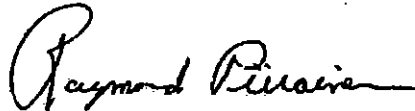
6. At the time of filing of this lawsuit on March 17, 2006, ATI had no office in the Eastern District of Michigan. While ATI at one time did have an office and a prototype shop in Rochester Hills, Michigan and in Auburn Hills, Michigan, which was used by a few employees and consultants, these offices are no longer in existence. ATI has no telephone number in the State of Michigan, and does not receive any mail in the Eastern District of Michigan. The

references to ATI's offices and business presence cited in Defendants' motion to transfer were at one time accurate, but are no longer true.

7. ATI maintains virtually no paper records. Several years ago, ATI digitized virtually all of its records, and maintains a practice of keeping only digital records for its operations. The only known exception to this are records stored by our patent counsel Brian Roffe in Valley Stream, New York, financial records stored in North Carolina and litigation-related records maintained by our outside litigation counsel. It is our practice to produce records electronically. All of the records that we would produce in this case are stored on servers in California and New Jersey.

8. I have recently personally spoken with Jeffrey Morin and Andrew Varga, two former ATI employees who are named inventors on two of the patents at issue. Both have recently indicated to me that they are willing to come to Delaware for trial of this case if necessary. I am aware from having spoken to her within the past year, that Kunghong Xu, a named inventor on one of the patents at issue, is currently working for General Motors. I have not been able to get in touch with her, but would expect General Motors to make her available for trial in Delaware.

FURTHER AFFIANT SAYETH NOT.

A handwritten signature in black ink, appearing to read "Raymond Piirainen", written in a cursive style.

RAY PIIRAINEN  
June 20, 2006



# **EXHIBIT 4**

### **030310 Honda, NEC venture supplies electronic safety systems**

**By Julie Cantwell**

**Automotive News / March 10, 2003**

**DETROIT** — Honda Motor Co. and NEC Solutions have formed a business to sell occupant-sensing technology to other automakers.

Elesys North America Inc. of McDonough, Ga., was incorporated in October, but the company used last week's SAE World Congress to talk about its business plans.

Honda owns two-thirds and NEC owns the remaining one-third of Elesys North America, which is a subsidiary of Honda Elesys Co. Ltd. of Yokohama, Japan. The company is the spinoff of NEC's Automotive Electronics Division.

Elesys North America's president, Akio Kobayashi, 52, was with Honda r&d for 25 years, the past 15 years as chief engineer.

Elesys' key technology is the SeatSentry Occupant Sensing System, licensed from the Massachusetts Institute of Technology.

The product relies on wires embedded underneath the seat cover to generate an electromagnetic field that detects the size of a seat occupant and whether he or she is out of position.

#### **Not based on weight**

The product is used in Honda and Acura vehicles to determine when to deactivate the side-impact airbags. It will be configured to control the front airbags by Sept. 1, in time to meet the National Highway Traffic Safety Administration's new regulations for detecting children and small adults, said Philip Rittmueller, 60, vice president of Elesys North America.

"Most of our competitors' systems rely on pressure or weight for detection," said Rittmueller, who was a vice president for NEC Solutions. "This (SeatSentry) is not necessarily a weight-based system. It's used more to look at the effective area of a person sitting down. It doesn't matter how tight the seat belt is."

Elesys also plans to sell its technology to seat makers that supply automakers other than Honda.

Rittmueller would not disclose sales goals but said the company expects to turn a profit in about three years.

He said the SeatSentry would add less than \$100 to the cost of a vehicle. The system is designed to last 15 years. Rittmueller declined to estimate the cost to repair or replace it.

#### **Big 3 interested**

The company already has a production contract with one of the Big 3 automakers, a spokesman said, but he did not identify the automaker or disclose production timing. He said contract discussions are under way with the two remaining Big 3 carmakers.

Elesys has 200 employees globally, including 53 in the United States. The company has an office in

Plymouth, Mich., called the Detroit Safety Center, to handle sales, program management and engineering support.

Elesys also supplies technology for electronic power steering, traction control systems, antilock braking systems and supplemental restraint systems for crash sensing.

The company also is developing adaptive cruise control, millimeter wave radar, a lane recognition system and an advanced occupant posture detection system.

# **EXHIBIT 5**

## Additional Information About Your Seat Belts

If a seat belt is worn during a crash, it must be replaced by the dealer. A belt that has been worn during a crash may not provide the same level of protection in a subsequent crash.

The dealer should also inspect the anchors for damage and replace them if needed. If the automatic seat belt tensioners activate during a crash, they must be replaced.

For information on how to clean your seat belts, see page 234.

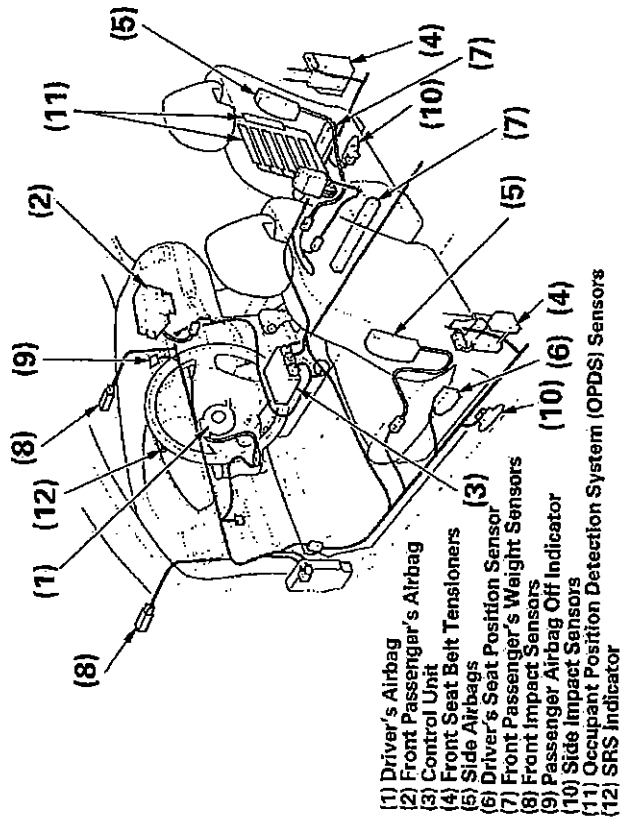
### **▲ WARNING**

Not checking or maintaining seat belts can result in serious injury or death if the seat belts do not work properly when needed.

Check your seat belts regularly and have any problem corrected as soon as possible.

## Additional Information About Your Airbags

### Airbag System Components



Your airbag system includes:

- Two SRS (Supplemental Restraint System) front airbags. The driver's airbag is stored in the center of the steering wheel; the front passenger's airbag is stored in the dashboard. Both are marked "SRS AIRBAG" (see page 22).
- Two side airbags, one for the driver and one for a front passenger. The airbags are stored in the outer edges of the seat-backs. Both are marked "SIDE AIRBAG" (see page 25).
- Two side curtain airbags, one for each side of the vehicle. The airbags are stored in the ceiling above the side windows. The front and rear pillars are marked "SIDE CURTAIN AIRBAG" (see page 27).

# **EXHIBIT 6**



US005948031A

**United States Patent** [19]

Jinno et al.

[11] Patent Number: **5,948,031**[45] Date of Patent: **\*Sep. 7, 1999****[54] VEHICLE PASSENGER SENSING SYSTEM AND METHOD**

5,087,825 2/1992 Ingraham.

(List continued on next page.)

[75] Inventors: Kazunori Jinno, Morrow, Ga.; Saikichi Sekido, Tokyo, Japan; Philip H. Rittmueller, St. Charles, Ill.

[73] Assignee: NEC Technologies, Inc., Itasca, Ill.

[\*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: 08/606,175

[22] Filed: Feb. 23, 1996

[51] Int. Cl.<sup>6</sup> ..... B60R 21/00

[52] U.S. Cl. .... 701/45; 280/735

[58] Field of Search ..... 364/424.055, 424.056, 364/424.057; 280/732, 735, 734; 340/457.1; 701/45, 46, 47; 180/268, 271, 272

**[56] References Cited****U.S. PATENT DOCUMENTS**

3,219,925	11/1965	Borley et al.	
3,732,538	5/1973	Gillund et al.	340/457.1
3,740,567	6/1973	Atkins	307/10 SB
3,781,672	12/1973	Mahby et al.	
3,843,924	10/1974	Wahlgren	
3,863,209	1/1975	Hollins	340/52 E
4,136,291	1/1979	Waldron	
4,614,937	9/1986	Paujois	
4,688,141	8/1987	Bernard et al.	
4,700,973	10/1987	Gademano et al.	280/735
4,796,013	1/1989	Yasuda et al.	340/562
4,885,566	12/1989	Aoki et al.	340/457.1
4,887,024	12/1989	Sugiyama et al.	
4,958,129	9/1990	Poduje et al.	
4,972,154	11/1990	Beckel et al.	
4,980,519	12/1990	Matthews	
5,002,308	3/1991	Lenzen et al.	280/735
5,071,160	12/1991	White et al.	280/735
5,074,583	12/1991	Fujita et al.	280/735

**FOREIGN PATENT DOCUMENTS**

60025475	8/1985	European Pat. Off.
63084102	4/1988	European Pat. Off.
63241402	6/1988	European Pat. Off.
0 302 727 A2	8/1989	European Pat. Off.
WO 90/16045	12/1990	European Pat. Off.
0 441 381 A1	8/1991	European Pat. Off.
WO 92/09063	5/1992	European Pat. Off.
0 609 021 A2	3/1994	European Pat. Off.
WO 94/23974	10/1994	European Pat. Off.
WO 95/21752	8/1995	European Pat. Off.
WO 96/09193	3/1996	European Pat. Off.
WO 96/36134	11/1996	European Pat. Off.
WO 97/31238	8/1997	European Pat. Off.
44 17 827 A 1	11/1995	Germany
1573582	8/1980	United Kingdom

**OTHER PUBLICATIONS**

Thomas G. Zimmerman, et al. "Applying Electric Field Sensing To Human-Computer Interfaces" (8 pages) (Oct. 6, 1994).

Leonard M. Magid, "Electromagnetic Fields, Energy, And Waves" (2 pages) (1972).

Primary Examiner—William A. Cuchlinski, Jr.

Assistant Examiner—Edward J. Pipala

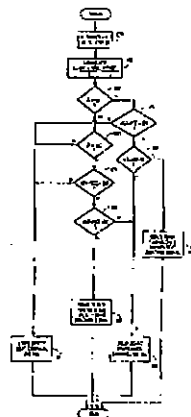
Attorney, Agent, or Firm—Brinks Hofer Gilson & Lione

[57]

**ABSTRACT**

A vehicle passenger sensing system and method in which the presence and position of a passenger is determined by transmitting an electric field from a first electrode and measuring currents induced by the electric field in a plurality of receiver electrodes. The induced currents at the various receiver electrodes are then compared to determine the presence of an adult size passenger, to distinguish between front-facing and rear-facing child safety seats, and to detect when a passenger is out of position. A switching circuit is provided to selectively transmit the electric field from each of the plurality of electrodes.

20 Claims, 8 Drawing Sheets







US006043743A

**United States Patent** [19]

Saito et al.

[11] **Patent Number:** 6,043,743[45] **Date of Patent:** Mar. 28, 2000[54] **PASSENGER DETECTING SYSTEM AND PASSENGER DETECTING METHOD**

[75] **Inventors:** Takashi Saito, Osaka; Masahiro Ofuji, Kanagawa; Kazunori Jinno, Osaka; Masanori Sugino, Kanagawa, all of Japan

[73] **Assignee:** NEC Corporation, Japan[21] **Appl. No.:** 09/028,282[22] **Filed:** Feb. 25, 1998[30] **Foreign Application Priority Data**

Feb. 26, 1997	[JP]	Japan	9-042649
Feb. 26, 1997	[JP]	Japan	9-042650
Feb. 26, 1997	[JP]	Japan	9-042651
Feb. 26, 1997	[JP]	Japan	9-042652

[51] **Int. Cl.<sup>7</sup>** G08B 13/26[52] **U.S. Cl.** 340/562; 280/735; 180/271

[58] **Field of Search** 340/562, 573.4, 340/870.37; 280/728.1, 728.2, 734, 735; 180/271, 273

[56] **References Cited****U.S. PATENT DOCUMENTS**

4,887,024	12/1989	Sugiyama et al.	324/61 R
5,446,391	8/1995	Aoki et al.	324/661
5,570,903	11/1996	Meister et al.	280/735
5,618,056	4/1997	Schoos et al.	280/735

5,722,686	3/1998	Blackburn et al.	280/735
5,724,024	3/1998	Sonderegger et al.	340/562
5,760,688	6/1998	Kasai	340/561
5,802,479	9/1998	Kithil et al.	701/45

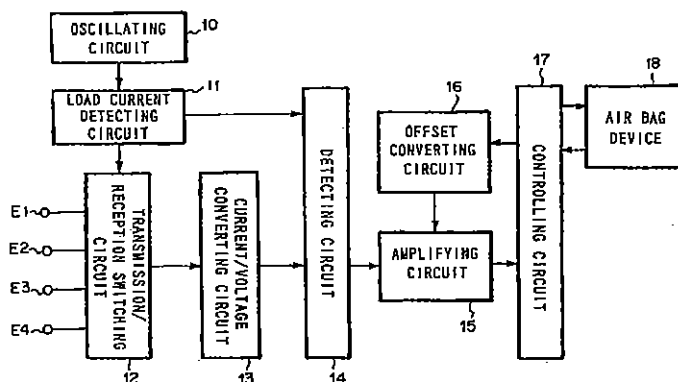
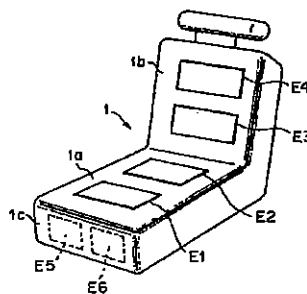
**FOREIGN PATENT DOCUMENTS**

6-65532	8/1994	Japan
9-509118	9/1997	Japan
95 21752	8/1995	WIPO

**Primary Examiner**—Jeffery A. Hofsass**Assistant Examiner**—Toan N. Pham**Attorney, Agent, or Firm**—Ostrolenk, Faber, Gerb & Soffen, LLP[57] **ABSTRACT**

A passenger detecting system is disclosed, that comprises a seat, a plurality of electrodes disposed at predetermined intervals on at least the front surface of the seat, an oscillating circuit for generating a weak electric field between at least one particular electrode (referred to as a first type electrode) of the electrodes and the other electrodes (referred to as second type electrodes), a current/voltage converting circuit for detecting displacement currents that flow corresponding to the weak electric field and for converting the displacement currents into respective voltages, a controlling circuit for detecting a seating pattern of an passenger or the like on the seat corresponding to output signals of the current/voltage converting circuit, and an air bag device for inflating an air bag in case of a collision.

48 Claims, 26 Drawing Sheets





US006161070A

**United States Patent** [19]

Jinno et al.

[11] **Patent Number:** 6,161,070[45] **Date of Patent:** Dec. 12, 2000[54] **PASSENGER DETECTION SYSTEM**

[75] Inventors: Kazunori Jinno, Tokyo; Masahiro Ofuji, Kanagawa, both of Japan

[73] Assignee: NEC Home Electronics, Inc., Tokyo, Japan

[21] Appl. No.: 09/145,309

[22] Filed: Aug. 31, 1998

**Related U.S. Application Data**

[63] Continuation-in-part of application No. 08/606,175, Feb. 23, 1996, Pat. No. 5,948,031.

[30] **Foreign Application Priority Data**

Sep. 3, 1997 [JP] Japan ..... 97-238272

[51] Int. Cl.<sup>7</sup> ..... B60R 21/00

[52] U.S. Cl. .... 701/45; 280/735

[58] Field of Search ..... 701/45, 46, 47; 280/728.1, 732, 734, 735; 180/268, 271, 272; 340/438, 457.1, 500

[56] **References Cited****U.S. PATENT DOCUMENTS**

3,219,925 11/1965 Borley et al. .  
 3,732,538 5/1973 Gillund et al. .  
 3,740,567 6/1973 Atkins .  
 3,781,672 12/1973 Maltby et al. .  
 3,843,924 10/1974 Wahlgren .  
 3,863,209 1/1975 Hollins .  
 5,002,308 3/1991 Lenzen et al. .

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

0302727A2 2/1989 European Pat. Off. .  
 0441381A1 8/1991 European Pat. Off. .  
 0609021A2 8/1994 European Pat. Off. .  
 4417827A1 11/1995 Germany .  
 60025475 2/1985 Japan .  
 63094102 4/1988 Japan .  
 63241402 10/1988 Japan .  
 1573582 8/1980 United Kingdom .

WO90/16045 12/1990 WIPO .  
 WO92/09063 5/1992 WIPO .  
 WO94/23974 10/1994 WIPO .  
 WO95/21752 8/1995 WIPO .

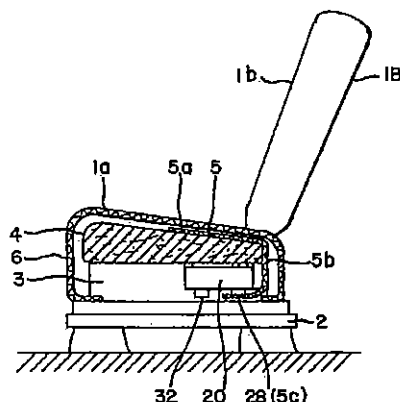
(List continued on next page.)

**OTHER PUBLICATIONS**Magid, L. M. *Electromagnetic Fields, Energy and Waves* (1972), p. 26, published in US.Paradiso, J. and N. Gershenfeld. "Musical Applications of Electric Field Sensing" (Oct. 1995) to be submitted to *Computer Music Journal*, pp. 1-25, published in US.

Zimmerman, T. G. et al. "Applying Electric Field Sensing to Human-Computer Interfaces" (Oct. 6, 1994), 8 pages, published in US.

*Primary Examiner*—William A. Cuchlinski, Jr.*Assistant Examiner*—Edward Pipala*Attorney, Agent, or Firm*—Craig A. Summerfield; Brinks Hofer Gilson & Lione[57] **ABSTRACT**

A passenger detection system including a single antenna electrode mounted on a surface of a passenger seat in an automobile. An oscillator generates an AC current having a predetermined voltage amplitude that is transmitted to the antenna electrode to produce a minute electric field around the antenna electrode. An amplitude control circuit is used to control the voltage amplitude of the output signal from the oscillator. The electrical characteristics of an object on the passenger seat alter the current and phase of the signal in the antenna electrode. A current detection circuit detects the amount of current flowing from the oscillator to the antenna electrode. In addition, a phase differential detection circuit detects a phase differential between the output signal from the oscillator and the signal on the antenna electrode. A control circuit detects the presence or absence of a passenger seated in the seat based on a current signal output from the current detection circuit and a phase differential signal output from the phase differential detection circuit. A control unit including the oscillator, the amplitude control circuit, the current detection circuit, the phase differential detection circuit and the control circuit, is contained in a single housing that is mounted under the passenger seat.

**18 Claims, 14 Drawing Sheets**



US006208249B1

(12) **United States Patent**  
Saito et al.

(10) Patent No.: **US 6,208,249 B1**  
(45) Date of Patent: **Mar. 27, 2001**

## (54) PASSENGER DETECTION SYSTEM

(75) Inventors: Takashi Saito, Osaka; Masahiro Ofuji, Kanagawa; Kazunori Jinno, Osaka, all of (JP)

(73) Assignee: NEC Corporation, Tokyo (JP)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/146,231

(22) Filed: Sep. 3, 1998

## (30) Foreign Application Priority Data

Sep. 3, 1997 (JP) ..... 9-238272  
Sep. 3, 1997 (JP) ..... 9-238296

(51) Int. Cl.<sup>7</sup> ..... G08B 13/26

(52) U.S. Cl. .... 340/561; 340/562; 340/573.1

(58) Field of Search ..... 340/435, 561, 340/562, 565, 870.37, 573.4, 436; 324/663, 671, 687; 280/728.1, 728.2, 734, 735; 180/271, 273

## (56) References Cited

## U.S. PATENT DOCUMENTS

5,394,292 \* 2/1995 Hayashida ..... 340/435  
5,760,688 \* 6/1998 Kasai ..... 340/561  
5,845,000 \* 12/1998 Breed et al. .... 382/100  
6,066,954 \* 5/2000 Gershenfeld et al. .... 324/671

## FOREIGN PATENT DOCUMENTS

9-42650 2/1997 (JP).

\* cited by examiner

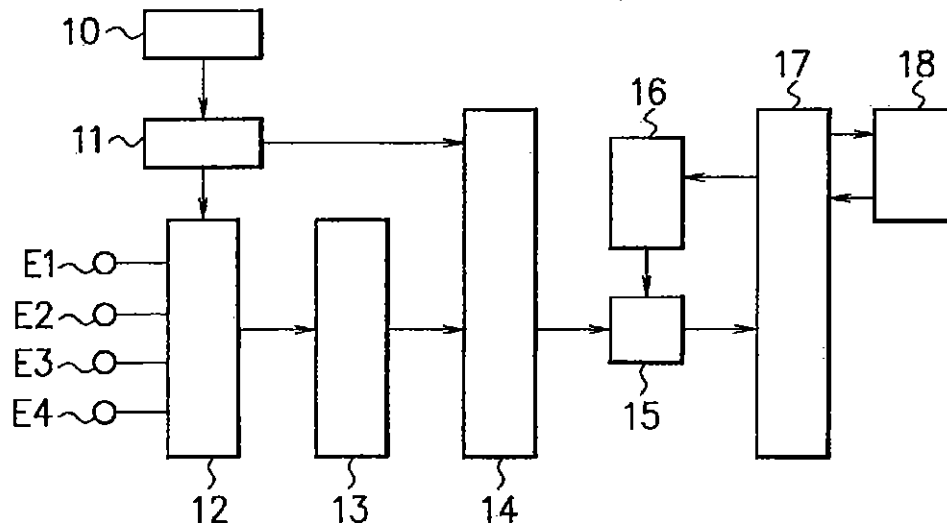
Primary Examiner—Vane T. Trieu

(74) Attorney, Agent, or Firm—Sughrue, Mion, Zinn, Macpeak & Seas, PLLC

## (57) ABSTRACT

A passenger detection system comprises an antenna electrode, an oscillation circuit, a current detection circuit, a phase difference detection circuit, and a control circuit. The antenna electrode is placed on the upper side of a seat. The oscillation circuit generates a high frequency low voltage oscillation signal in order to generate a weak alternating electric field around the antenna electrode. The current detection circuit detects a transmission current which passes between the oscillation circuit and the antenna electrode according to the weak alternating electric field which is generated around the antenna electrode. The phase difference detection circuit detects the phase difference between the oscillation signal supplied from the oscillation circuit and an output signal which is supplied to the antenna electrode. And the presence or absence of a passenger seated on the seat is judged by the control circuit based on the outputs of the current detection circuit and the phase difference detection circuit. Especially, the passenger detection system needs only one antenna electrode, therefore judgment on the presence or absence of a passenger seated on the seat can be executed with simplified circuit composition and low cost.

27 Claims, 22 Drawing Sheets





US006263271B1

(12) **United States Patent**  
Oka et al.

(10) **Patent No.:** US 6,263,271 B1

(45) **Date of Patent:** Jul. 17, 2001

(54) **PASSENGER DETECTION SYSTEM  
COMPRISING SIDE AIRBAG WHICH IS  
DEPLOYABLE OR NON-DEPLOYABLE  
ACCORDING TO SEATING CONDITION**

5,948,031 \* 9/1999 Jinno et al. .... 701/45  
6,018,693 \* 1/2000 Blackburn et al. .... 701/45  
6,126,194 \* 10/2000 Yaniv et al. .... 280/733  
6,179,326 \* 1/2001 Breed et al. .... 280/735

(75) **Inventors:** Yoshitaka Oka, Osaka; Tsutomu  
Fukui, Wako; Nobuhiko Koyota,  
Wako; Takashi Inou, Wako; Kazutomo  
Isonaga, Wako, all of (JP)

#### FOREIGN PATENT DOCUMENTS

6-065532 8/1994 (JP) .  
9-509118 9/1997 (JP) .

\* cited by examiner

(73) **Assignees:** NEC Corporation; Honda Giken  
Kogyo Kabushiki Kaisha, both of  
Tokyo (JP)

*Primary Examiner*—Gary Chin

(74) *Attorney, Agent, or Firm*—Foley & Lardner

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

#### (57) **ABSTRACT**

A passenger detection system for precisely detecting the sitting condition of a passenger occupying a seat, who leans against the seat supporting section, and for suitably controlling the deployment/non-deployment of the side airbag based on the results of the detection process. The system comprises a seat having a seat supporting section in which an antenna electrode is provided; a voltage generation device for generating a high-frequency and low-voltage signal which induces a weak electric field around the antenna electrode; a current detection section for detecting a current which flows according to the generated weak electric field; and a control circuit for detecting a leaning condition of the passenger against the seat supporting section, based on a signal output from the current detection section; and an airbag apparatus including a side airbag unit positioned close to a door, the apparatus having a function of deploying the side airbag unit when a collision occurs. Data representing results detected by the control circuit is sent to the airbag apparatus so as to set the side airbag unit to one of the deployable and non-deployable states.

(21) **Appl. No.:** 09/394,005

(22) **Filed:** Sep. 10, 1999

#### (30) **Foreign Application Priority Data**

Sep. 10, 1998 (JP) ..... 10-257122

(51) **Int. Cl.**<sup>7</sup> ..... B60R 21/22

(52) **U.S. Cl.** ..... 701/45; 307/9.1; 280/730.2;  
280/735

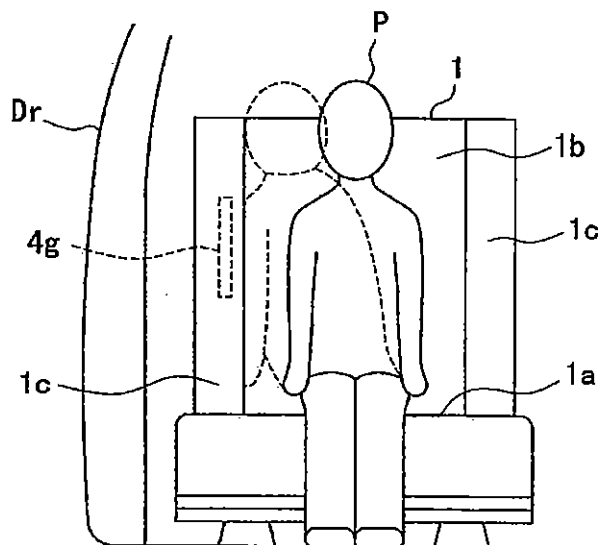
(58) **Field of Search** ..... 701/45, 46, 47;  
307/9.1, 10.1; 280/730.1, 730.2, 734, 735,  
733; 180/268, 271, 272, 273

#### (56) **References Cited**

##### U.S. PATENT DOCUMENTS

5,464,246 \* 11/1995 Castro et al. .... 280/730.2  
5,524,924 \* 6/1996 Steffens, Jr. et al. .... 280/730.2  
5,525,843 6/1996 Höwing ..... 307/9.1

4 Claims, 11 Drawing Sheets





US006310407B1

(12) **United States Patent**  
Saito et al.

(10) **Patent No.:** US 6,310,407 B1  
(45) **Date of Patent:** Oct. 30, 2001

(54) **PASSENGER DETECTING SYSTEM AND AIR BAG SYSTEM USING THE SAME**

5,844,415 12/1998 Gershenfeld et al. .  
5,936,412 \* 8/1999 Gershenfeld et al. .... 324/663  
6,093,910 \* 7/2000 McClintock et al. .... 219/217

(75) **Inventors:** Takashi Saito; Kenji Kumagai;  
Kazunori Jinno; Satoshi Baba, all of  
Osaka; Masahiro Ofuji, Kanagawa;  
Tsutomu Fukui, Saitama; Nobuhiko  
Koyota, Saitama; Takashi Inou,  
Saitama; Kazutomo Isonaga, Saitama;  
Makoto Nagai, Saitama, all of (JP)

#### FOREIGN PATENT DOCUMENTS

0 838 697 A2 4/1998 (EP) .  
61-113527 5/1986 (JP) .  
3-52266 5/1991 (JP) .  
4-46843 2/1992 (JP) .  
9-509118 9/1997 (JP) .  
11271463 10/1999 (JP) .  
WO 97/31238 8/1997 (WO) .

(73) **Assignees:** NEC Corporation; Hon-da Giken  
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Tokyo (JP)

\* cited by examiner

(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

*Primary Examiner*—Josic Ballato

*Assistant Examiner*—Robert L. Deberadinis

(74) *Attorney, Agent, or Firm*—McGuireWoods LLP

(21) **Appl. No.:** 09/345,404

(22) **Filed:** Jul. 1, 1999

#### (30) Foreign Application Priority Data

Jul. 13, 1998 (JP) ..... 10-197669  
Jul. 13, 1998 (JP) ..... 10-197670  
Jul. 13, 1998 (JP) ..... 10-197671  
Aug. 31, 1998 (JP) ..... 10-245893

(51) **Int. Cl.<sup>7</sup>** ..... B60L 3/00

(52) **U.S. Cl.** ..... 307/10.1; 340/370.37;  
324/663

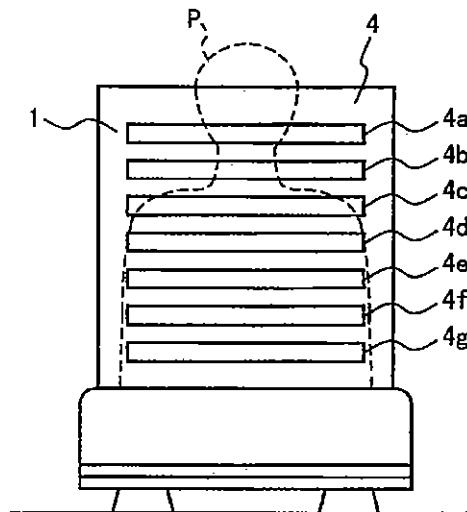
(58) **Field of Search** ..... 307/10.1; 324/663;  
340/370.37; 219/217; 600/395

#### (56) References Cited

##### U.S. PATENT DOCUMENTS

3,954,100 \* 5/1976 Sem-Jacobsen ..... 128/2.06

43 Claims, 26 Drawing Sheets





US006325413B2

(12) **United States Patent**  
Saito et al.

(10) Patent No.: **US 6,325,413 B2**  
(45) Date of Patent: **\*Dec. 4, 2001**

(54) **PASSENGER DETECTION SYSTEM**

(75) Inventors: **Takashi Saito, Osaka; Masahiro Ofuji, Kanagawa, both of (JP)**

(73) Assignee: **NEC Corporation, Tokyo (JP)**

(\*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/191,387**

(22) Filed: **Nov. 13, 1998**

(30) **Foreign Application Priority Data**

Nov. 17, 1997 (JP) ..... 9-315399

(51) Int. Cl.<sup>7</sup> ..... **B60R 21/32**

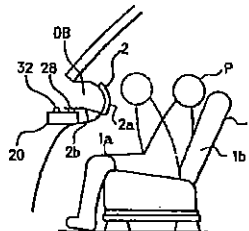
(52) U.S. Cl. .... **280/735; 701/45**

(58) Field of Search ..... **280/734, 735; 701/45, 49; 343/711**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,370,658 \* 1/1983 Hill ..... 343/713  
5,061,939 \* 10/1991 Nakase ..... 343/700 MS  
5,649,316 \* 7/1997 Prudhomme et al. .... 455/345  
5,848,802 \* 2/1999 Breed et al. .... 280/735  
5,868,423 \* 2/1999 Takimoto et al. .... 280/735  
5,871,232 \* 2/1999 White ..... 280/735  
5,926,141 \* 7/1999 Lindenmeier et al. .... 343/713  
5,948,031 \* 9/1999 Jinno et al. .... 701/45  
5,954,360 \* 9/1999 Griggs, III et al. .... 280/735  
5,964,478 \* 10/1999 Stanley et al. .... 280/735  
5,997,033 \* 12/1999 Gray et al. .... 280/735  
5,999,140 \* 12/1999 Johnson ..... 343/795  
6,018,693 \* 1/2000 Blackburn et al. .... 701/45



6,026,340 \* 2/2000 Corrado et al. .... 701/47  
6,029,105 \* 2/2000 Schweizer ..... 701/45  
6,043,736 \* 3/2000 Sawahata et al. .... 340/438  
6,043,743 \* 2/1999 Saito et al. .... 340/562  
6,144,343 \* 11/2000 Furuya et al. .... 343/713

**FOREIGN PATENT DOCUMENTS**

9-42650 2/1997 (JP).

\* cited by examiner

Primary Examiner—Eric Culbreth

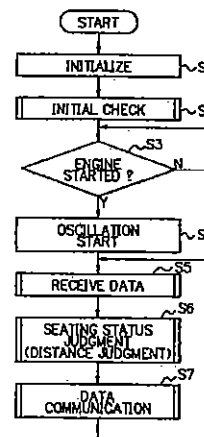
Assistant Examiner—L. Lum

(74) Attorney, Agent, or Firm—Sughrue, Mion, Zinn, Macpeak & Seas, PLLC

(57) **ABSTRACT**

A passenger detection system comprises an antenna electrode which is provided to the dashboard of a car, an oscillation circuit for generating a high frequency low voltage oscillation signal in order to generate a weak alternating electric field around the antenna electrode, a current detection section for detecting a transmission current which passes between the oscillation circuit and the antenna electrode depending on the weak alternating electric field which is generated around the antenna electrode, a phase difference detection section for detecting the phase difference between the oscillation signal supplied from the oscillation circuit and an output signal which is supplied to the antenna electrode, and a control circuit for judging the presence or absence of a passenger seated on the seat based on the detected phase difference and judging the distance between the passenger and the dashboard based on the detected transmission current. The passenger detection system is connected with an air bag unit, and the air bag unit is set at a 'no deployment mode' if it is judged that no passenger is seated on the seat or the distance between the passenger and the dashboard is less than a minimum allowable distance, thereby the passenger who is close to the dashboard is protected from secondary injury due to strong deployment of the air bag.

**25 Claims, 17 Drawing Sheets**





US006329913B1

(12) **United States Patent**  
**Shieh et al.**

(10) Patent No.: **US 6,329,913 B1**  
(45) Date of Patent: **Dec. 11, 2001**

(54) **PASSENGER DETECTION SYSTEM AND METHOD**

(75) Inventors: **Shih-An Shieh**, Alpharetta;  
**Masanobu Shinmura**, Stockbridge;  
**James Frederick Kirksey**, Conyers, all  
of GA (US)

(73) Assignee: **NEC Technologies, Inc.**, Itasca, IL  
(US)

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/413,099**

(22) Filed: **Oct. 6, 1999**

(51) Int. Cl.<sup>7</sup> ..... **G08B 13/26**

(52) U.S. Cl. .... **340/561; 340/562; 340/438**

(58) Field of Search ..... **340/425.5, 436,  
340/438, 551, 552, 561, 562, 573.1; 180/271,  
273; 280/728.1, 728.2, 734, 735**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,404,128 \* 4/1995 Ogino et al. .... 340/425.5  
5,602,734 2/1997 Kithil ..... 701/45  
5,691,693 11/1997 Kithil ..... 340/439  
5,724,024 \* 3/1998 Sonderegger et al. .... 340/562  
5,732,375 3/1998 Cashler ..... 701/45  
5,802,479 9/1998 Kithil et al. .... 701/45  
5,808,552 \* 9/1998 Wiley et al. .... 340/573.1  
5,844,415 12/1998 Gershenfeld et al. .... 324/663  
5,878,620 3/1999 Gilbert et al. .... 73/172  
5,914,610 6/1999 Gershenfeld et al. .... 340/870.37

5,948,031 9/1999 Jinno et al. .... 701/45  
6,012,007 \* 1/2000 Fortune et al. .... 340/436  
6,014,602 \* 1/2000 Kithil et al. .... 701/45  
6,043,743 \* 3/2000 Saito et al. .... 340/562

**OTHER PUBLICATIONS**

Joseph A. Paradiso and Neil Gershenfeld, Musical Appli-  
cations of Electric Field Sensing; Oct. 1995; pp. 1-25.  
National Highway Traffic Safety Administration; Docket  
No. NHTSA 98-4405; Notice 1.  
National Highway Traffic Safety Administration; Docket  
No. NHTSA 98-3847; Aug. 4, 1998; vol. No. 63, No. 149.  
Kazunori Jinno; Occupant Sensing Utilizing Perturbation of  
Electric Fields; Feb. 1997; pp. 117-129.  
J. R. Smith; Field Mice: Extracting Hand Geometry From  
Electric Field Measurements; 1996; pp. 587-608.

\* cited by examiner

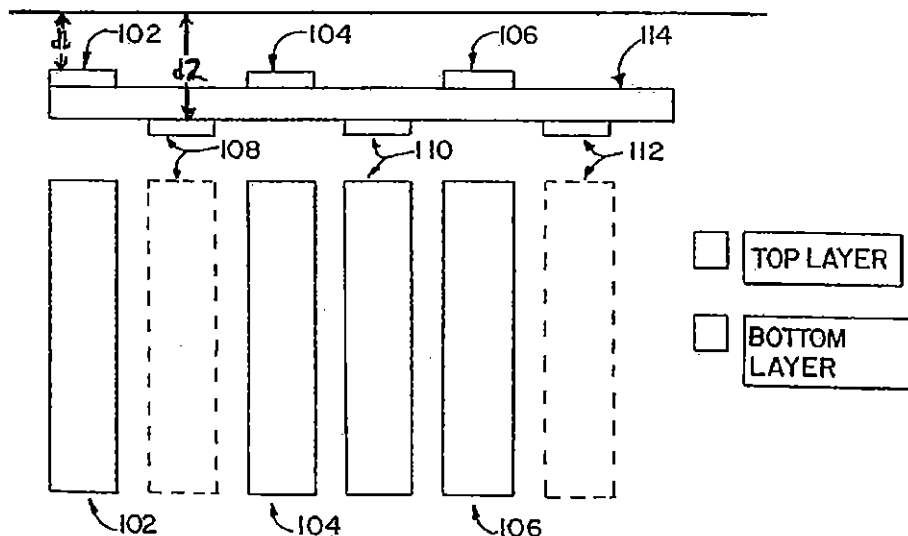
Primary Examiner—Van T. Tricu

(74) Attorney, Agent, or Firm—Craig A. Summerfield;  
Brinks Hofer Gilson & Lione

(57) **ABSTRACT**

A passenger detection system is provided. The passenger  
detection system utilizes an oscillation circuit that causes an  
antenna electrode to emit an electric field that is disrupted by  
the electrical characteristics of an object placed on the seat.  
This disruption alters the current and phase of the signal in  
the antenna electrode. By comparing the current flowing in  
the antenna electrode and/or the difference between the  
phase of the signal in the antenna electrode and the oscil-  
lation circuit output signal with predetermined threshold  
values, it is possible to detect the presence of a passenger in  
a reliable and inexpensive manner.

**32 Claims, 9 Drawing Sheets**







US006329914B1

(12) **United States Patent**  
Shieh et al.

(10) **Patent No.:** US 6,329,914 B1

(45) **Date of Patent:** \*Dec. 11, 2001

(54) **THICKNESS MEASUREMENT SYSTEM AND METHOD FOR VEHICLE OCCUPANT DETECTION**

5,844,415 12/1998 Gershenfeld et al. .... 324/663

(List continued on next page.)

(75) **Inventors:** Shih-An Shieh, Alpharetta; James Frederick Kirksey, Conyers, both of GA (US)

**FOREIGN PATENT DOCUMENTS**

10-236271 11/2000 (JP) .  
WO 97/39920 10/1997 (WO) .  
WO 99/05008 2/1999 (WO) .  
WO 00/50261 8/2000 (WO) .

(73) **Assignee:** NEC Technologies, Inc., Itasca, IL (US)

**OTHER PUBLICATIONS**

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

Joseph A. Paradiso and Neil Gershenfeld, Musical Applications of Electric Field Sensing; Oct. 1995; pp. 1-25.

National Highway Traffic Safety Administration; Docket No. NHTSA 98-4405; Notice 1.

National Highway Traffic Safety Administration; Docket No. NHTSA 98-3847; Aug. 4, 1998; vol. No. 63, No. 149. Kazunori Jinno; Occupant Sensing Utilizing Perturbation of Electric Fields; Feb., 1997; pp. 117-129.

J. R. Smith; Field Mice: Extracting Hand Geometry From Electric Field Measurements; 1996; pp. 587-608.

This patent is subject to a terminal disclaimer.

(21) **Appl. No.:** 09/678,215

(22) **Filed:** Sep. 29, 2000

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/413,099, filed on Oct. 6, 1999.

(60) Provisional application No. 60/195,590, filed on Apr. 6, 2000.

(51) **Int. Cl.** ..... G08B 13/26

(52) **U.S. Cl.** ..... 340/561; 340/562; 280/735; 180/271

(58) **Field of Search** ..... 340/425.5, 436, 340/438, 551, 552, 561, 562; 180/271, 273; 280/728.1, 728.2, 734, 735

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,366,241 11/1994 Kithil ..... 280/735  
5,404,128 4/1995 Ogino et al. .... 340/425.5  
5,602,734 2/1997 Kithil ..... 701/45  
5,691,693 11/1997 Kithil ..... 340/439  
5,724,024 3/1998 Sonderegger et al. .... 340/562  
5,802,479 9/1998 Kithil et al. .... 701/45  
5,808,552 \* 9/1998 Wiley et al. .... 340/573.1

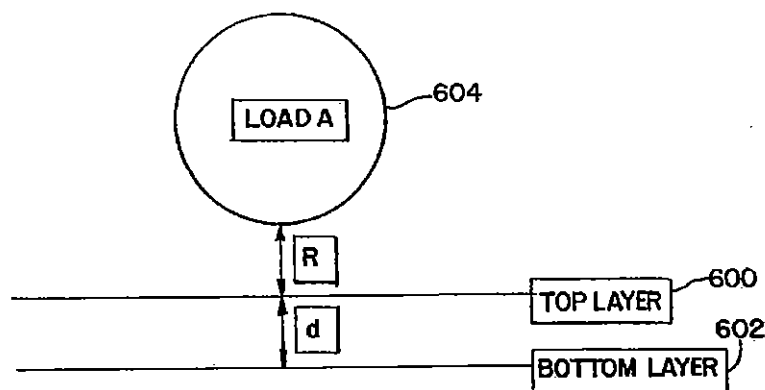
**Primary Examiner**—Van T. Trieu

(74) **Attorney, Agent, or Firm**—Craig A. Summerfield; Brinks Hofer Gilson & Lione

(57) **ABSTRACT**

A passenger detection system is provided. The passenger detection system utilizes an oscillation circuit that causes an antenna electrode to emit an electric field that is disrupted by the electrical characteristics of an object placed on the seat. This disruption alters the current and phase of the signal in the antenna electrode. By comparing the current flowing in the antenna electrode and/or the difference between the phase of the signal in the antenna electrode and the oscillation circuit output signal with predetermined threshold values, it is possible to detect the presence of a passenger in a reliable and inexpensive manner. The determination is made with a two layer electrode arrangement, including smaller and larger electrodes. The two layers allow calculation of an amount of compression on the seat. The amount of compression is used to characterize the passenger.

35 Claims, 9 Drawing Sheets







US006356187B2

(12) **United States Patent**  
Jinno et al.

(10) Patent No.: **US 6,356,187 B2**

(45) Date of Patent: **Mar. 12, 2002**

(54) **PASSENGER DETECTION SYSTEM**

JP 10-236270 9/1998

WO WO-97/30864 \* 8/1997

(75) Inventors: **Kazunori Jinno, Osaka; Masanori Sugino, Kanagawa, both of (JP)**

\* cited by examiner

(73) Assignee: **NEC Corporation, Tokyo (JP)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

Primary Examiner—Julie Lieu

(74) Attorney, Agent, or Firm—Sughrue Mion, PLLC

(57) **ABSTRACT**

(21) Appl. No.: **09/102,918**

(22) Filed: **Jun. 23, 1998**

(30) **Foreign Application Priority Data**

Jun. 23, 1997 (JP) ..... 9-166207

(51) Int. Cl.<sup>7</sup> ..... **B60Q 1/00**

(52) U.S. Cl. .... **340/438; 340/561; 340/567; 701/45; 701/46; 701/47; 280/732; 280/734; 280/735; 180/271**

(58) Field of Search ..... **340/438, 561, 340/567; 701/45-47; 280/735, 732, 734; 180/268, 271, 272**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

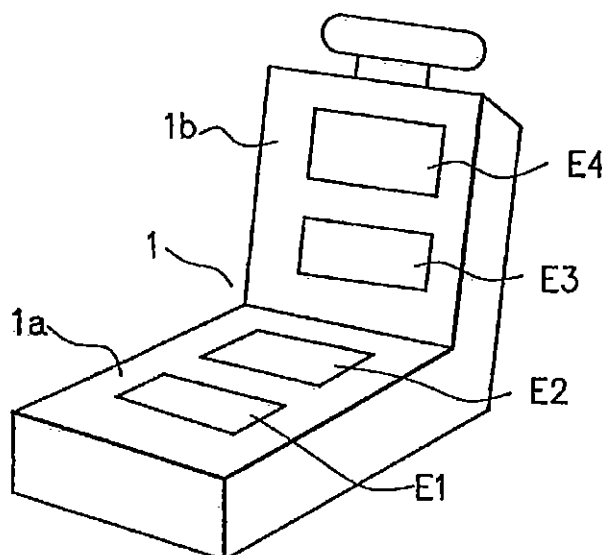
4,796,013 A \* 1/1989 Yasuda ..... 340/562  
4,885,566 A \* 12/1989 Aoki et al. .... 340/457.1  
5,871,232 A \* 2/1999 White ..... 280/735  
5,914,610 A \* 6/1999 Gershenfeld et al. .... 324/663  
5,936,412 A \* 8/1999 Gershenfeld et al. .... 324/663  
5,948,031 A \* 9/1999 Jinno et al. .... 701/45

**FOREIGN PATENT DOCUMENTS**

JP 9-42650 9/1998

A passenger detection system for detecting seating status of a passenger on a seat of a vehicle in which structure of electrodes placed on the seat is improved, is proposed. A plurality of electrodes are placed apart on the upper side of the seat, and a weak alternating electric field is generated between a transmission electrode, selected from the electrodes plurality of and reception electrodes other than the transmission electrode, and displacement currents passing in the reception plurality of electrodes, caused by the weak alternating electric field are detected. The seating status of the passenger on the seat is determined by analyzing the detected displacement currents. An electrode structure is preliminarily formed by fixing the electrodes apart on an electrical insulating base material, and the electrode structure is placed between a cushion material and a covering material of the seat. Preferably, the electrode structure is fixed to one or more components of the seat. For example, the electrodes are formed of electrically conductive fabric and the electrodes are fixed to the base material by means of bonding by heating of thermoplastic resin or thermosetting resin. According to the system, installation of the electrodes on the seat can be performed efficiently and the seating status can be detected precisely with constant distances between the electrodes.

**15 Claims, 7 Drawing Sheets**





US006404074B2

(12) **United States Patent**  
Saito et al.

(10) Patent No.: **US 6,404,074 B2**

(45) Date of Patent: **\*Jun. 11, 2002**

(54) **PASSENGER DETECTING SYSTEM AND AIR BAG SYSTEM USING THE SAME**

(75) Inventors: **Takashi Saito; Kenji Kumagai; Kazunori Jinno; Satoshi Baba**, all of Osaka; **Masahiro Ofuji**, Kanagawa; **Tsutomu Fukui**, Saitama; **Nobuhiro Koyota**, Saitama; **Takashi Inou**, Saitama; **Kazutomo Isonaga**, Saitama; **Makoto Nagai**, Saitama, all of (JP)

(73) Assignee: **NEC Corporation, Tokyo (JP)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/925,602**

(22) Filed: **Aug. 10, 2001**

#### Related U.S. Application Data

(62) Division of application No. 09/345,404, filed on Jul. 1, 1999, now Pat. No. 6,310,407.

#### (30) Foreign Application Priority Data

Jul. 13, 1998	(JP)	10/197669
Jul. 13, 1998	(JP)	10/197670
Jul. 13, 1998	(JP)	10/197671
Aug. 31, 1998	(JP)	10/245893

(51) Int. Cl.<sup>7</sup> ..... **B60L 3/00**

(52) U.S. Cl. .... **307/10.1; 340/370.37; 324/663**

(58) Field of Search ..... **307/10.1; 340/370.37; 324/663; 219/217; 600/395**

#### (56) References Cited

##### U.S. PATENT DOCUMENTS

3,954,100 A	5/1976	Sem-Jacobsen
5,844,415 A	12/1998	Gershenfeld et al.
5,936,412 A	8/1999	Gershenfeld et al.
6,093,910 A	7/2000	McClintock et al.

##### FOREIGN PATENT DOCUMENTS

EP	0 838 697 A2	4/1998
JP	61-113527	5/1986
JP	3-52266	5/1991
JP	4-46843	2/1992
JP	9-509118	9/1997
JP	11271463	10/1999
WO	97/31238	8/1997

Primary Examiner—Stephen W. Jackson

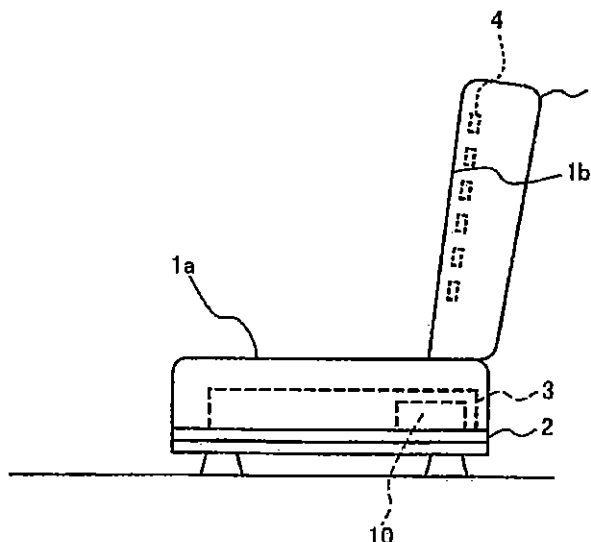
Assistant Examiner—Robert Deberadinis

(74) Attorney, Agent, or Firm—Whitham, Curtis & Christofferson, PC

#### (57) ABSTRACT

A passenger detecting system includes a plurality of antenna electrodes provided in a seat, a signal generating section, a detecting section, a switching circuit and a control unit. The signal generating section generates an electrode signal. The switching circuit sequentially supplies the electrode signal to the plurality of antenna electrodes one by one in response to a switching control signal. The detecting section detects change of the electrode signal to generate a detection signal when the electrode signal is supplied to each of the plurality of antenna electrodes. The control unit outputs the switching control signal to the switching circuit and generates a passenger data associated with a passenger on the seat based on the detection signal for each of the plurality of antenna electrodes.

18 Claims, 26 Drawing Sheets





US006556137B1

(12) **United States Patent**  
Oka et al.

(10) Patent No.: **US 6,556,137 B1**  
(45) Date of Patent: **Apr. 29, 2003**

(54) **PASSENGER DETECTING SYSTEM AND AIR BAG APPARATUS USING THE SAME**

(75) Inventors: Yoshitaka Oka, Osaka (JP); Satoshi Baba, Osaka (JP)

(73) Assignee: NEC Corp. (JP)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

JP	61-113527	5/1986	
JP	3-52266	5/1991	
JP	4-46843	2/1992	
JP	4-49498	2/1992	
JP	7-270541	10/1995	
JP	10-236269	2/1997	340/561
JP	9-509118	9/1997	
JP	11-271463	10/1999	
WO	WO 9731238	8/1997	

#### OTHER PUBLICATIONS

European Search Report issued Nov. 7, 2000 in a related application (in English).

\* cited by examiner

Primary Examiner—Anh La

(74) Attorney, Agent, or Firm—Dickstein, Shapiro, Morin & Oshinsky, LLP.

(21) Appl. No.: 09/361,726

(22) Filed: Jul. 27, 1999

#### (30) Foreign Application Priority Data

Jul. 28, 1998	(JP)	10-212949
Aug. 31, 1998	(JP)	10-245894

(51) Int. Cl.<sup>7</sup> ..... G08B 13/26

(52) U.S. Cl. .... 340/561; 280/735; 307/9.1

(58) Field of Search ..... 340/561, 562, 340/573.1; 701/45, 46, 47; 307/9.1; 280/730.2, 735

#### (56) References Cited

##### U.S. PATENT DOCUMENTS

5,426,416 A	*	6/1995	Jefferies et al.	340/664
5,844,415 A		12/1998	Gershenfeld et al.	324/663
5,948,031 A	*	9/1999	Jinno	701/45
6,161,070 A	*	12/2000	Jinno	701/45
6,208,249 B1	*	3/2001	Saito	340/561
6,263,271 B1	*	7/2001	Oka	701/41

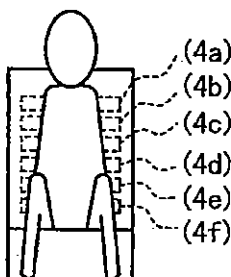
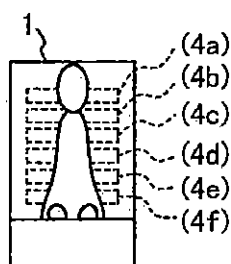
##### FOREIGN PATENT DOCUMENTS

EP 0838697 4/1998

#### (57) ABSTRACT

A passenger detecting system includes an antenna electrode, a signal generating circuit, a detecting circuit, and a control circuit. The antenna electrode is provided in a seat to be occupied by a passenger. The signal generating circuit generates and supplies a supply signal to the antenna electrode through a resistor such that an electric field is generated around the antenna electrode. The detecting circuit includes the resistor, and detects a direct current data signal from a line voltage associated with a voltage drop across the resistor, wherein the line voltage changes depending upon an object on the seat. The control circuit determines from the detected direct current data signal, whether or not a passenger is present in the seat and whether the passenger is an adult or a child.

30 Claims, 26 Drawing Sheets





US00655955B1

(12) **United States Patent**  
Saitou et al.

(10) Patent No.: **US 6,559,555 B1**  
(45) Date of Patent: **May 6, 2003**

(54) **PASSENGER DETECTION SYSTEM AND DETECTION METHOD**

(75) Inventors: Takashi Saitou, Osaka (JP); Masahiro Ofuji, Yokohama (JP); Yoshitaka Oka, Osaka (JP); Kazunori Jinno, Osaka (JP)

(73) Assignee: NEC Corporation (JP)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/395,046

(22) Filed: Sep. 13, 1999

(51) Int. Cl.<sup>7</sup> ..... B60R 21/01

(52) U.S. Cl. .... 307/10.1; 307/121; 280/735

(58) Field of Search ..... 307/9.1, 10.1, 307/121; 280/735; 340/573.1; 701/45

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,573,082 A	2/1986	Jeskey	358/250
5,321,789 A	6/1994	Kida et al.	385/133
5,844,415 A	12/1998	Smith et al.	
5,877,492 A	3/1999	Fujieda et al.	250/208.1
5,935,412 A	8/1999	Smith et al.	
6,310,407 B1 *	10/2001	Saito et al.	307/10.1
6,356,194 B1	3/2002	Fukui et al.	

**FOREIGN PATENT DOCUMENTS**

DE	19900842	7/1999	
DE	199 00 842	7/1999	
GB	2333160 A *	7/1999	B60N/2/00
JP	3-233391	10/1991	
JP	4-303788	10/1992	
JP	5-291924	11/1993	
JP	5-291925	11/1993	
JP	7-270541	10/1995	
JP	9-509118	9/1997	
JP	9-301119	11/1997	

JP	11-198705	7/1999
JP	11-281748	10/1999
JP	11-334451	12/1999
JP	11-351808	12/1999
JP	2000-38077	2/2000

**OTHER PUBLICATIONS**

European Search Report (in English) issued Feb. 14, 2000 in a related application.

Hardy L et al.: "Flat Eddy-Current Matrix Sensor for Detecting Metallic Objects" Sensors and Actuators A, CH, Elsevier, Sequoia S.A., Lausanne, vol. A29, No. 1, Sep. 1, 1991, pp. 13-19, XP000230912, ISSN: 0924-4247 \*the whole document\*.

(List continued on next page.)

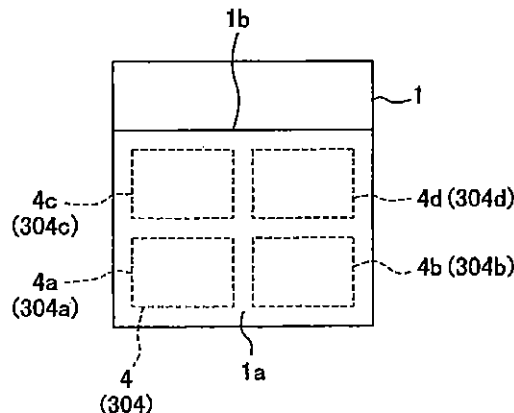
Primary Examiner—Fritz Fleming

(74) Attorney, Agent, or Firm—Dickstein, Shapiro, Morin & Oshinsky, LLP.

(57) **ABSTRACT**

A passenger detection system is presented so that the master control circuit in the system instructs the passenger airbag control circuit controlling the operation of the airbag designated for the passenger seat to be in the deployable state or not-deployable state, depending on the seating conditions of a passenger sitting on the passenger seat, for example whether the passenger is an adult or a child. The passenger detection system is operated by a plurality of antenna electrodes disposed on the passenger seat; an electric field generation device for generating an electric field around an antenna electrode; a switching circuit for connecting the electric field generation device to the various antenna electrodes; an information detection circuit for detecting information related to a current flowing in a particular antenna electrode selected by the switching circuit; a master control circuit for receiving signal data output from the information detection circuit, and judging passenger seating conditions according to the signal data; and an airbag apparatus for controlling the operation of an airbag designated for the driver seat and an airbag designated for the passenger seat.

19 Claims, 78 Drawing Sheets





US006960841B2

(12) **United States Patent**  
Saitou et al.

(10) Patent No.: **US 6,960,841 B2**  
(45) Date of Patent: **Nov. 1, 2005**

(54) **PASSENGER DETECTION SYSTEM AND  
DETECTION METHOD**

6,208,249 B1 \* 3/2001 Saito et al. .... 340/561

**FOREIGN PATENT DOCUMENTS**

(75) Inventors: **Takashi Saitou, Osaka (JP); Masahiro  
Ofuji, Yokohama (JP); Yoshitaka Oka,  
Osaka (JP); Kazunori Jinno, Osaka  
(JP)**

WO WO97/30864 8/1997

\* cited by examiner

(73) Assignee: **Honda Elesys Co., Ltd. (JP)**

*Primary Examiner*—Robert L. DeBeradinis

(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 4 days.

(74) *Attorney, Agent, or Firm*—Dickstein, Shapiro, Morin  
& Oshinsky, LLP

(57) **ABSTRACT**

(21) Appl. No.: **10/368,036**

(22) Filed: **Feb. 19, 2003**

(65) **Prior Publication Data**

US 2003/0151240 A1 Aug. 14, 2003

**Related U.S. Application Data**

(62) Division of application No. 09/395,046, filed on Sep. 13,  
1999, now Pat. No. 6,559,555.

(51) Int. Cl.<sup>7</sup> ..... **B60L 1/00**

(52) U.S. Cl. .... **307/10.1; 340/370.37;  
340/667; 324/663; 180/273**

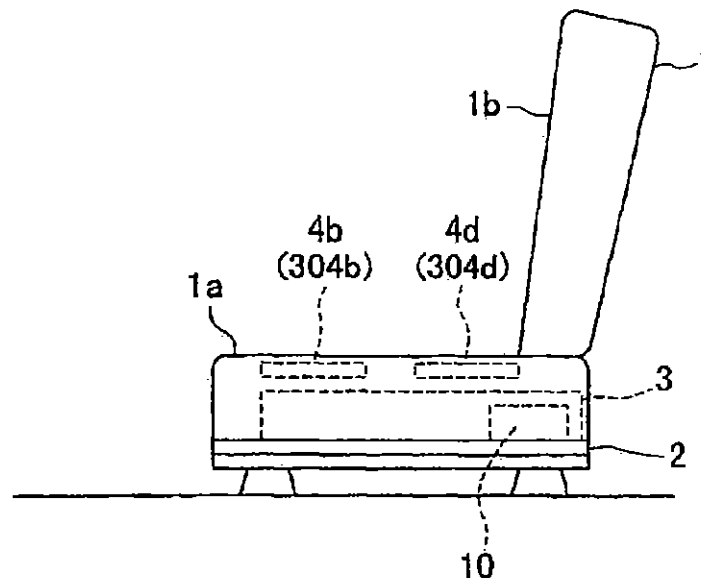
(58) Field of Search ..... **307/10.1; 340/370.37,  
340/667; 324/663; 180/273**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,948,031 A \* 9/1999 Jinno et al. .... 701/45

**51 Claims, 78 Drawing Sheets**



US 2003/0204295 A1

(19) **United States**(12) **Patent Application Publication** (10) Pub. No.: US 2003/0204295 A1  
Thompson et al. (43) Pub. Date: Oct. 30, 2003(54) **JUDGMENT LOCK FOR OCCUPANT  
DETECTION AIR BAG CONTROL**(76) Inventors: Gregory T. Thompson, Jonesboro, GA  
(US); Shihuh-An Shieh, Alpharetta, GA  
(US); Kellchi Hasegawa, Stockbridge,  
GA (US); Svetoslav G. Stoyanov,  
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P.O. BOX 10395  
CHICAGO, IL 60610 (US)

(21) Appl. No.: 10/133,970

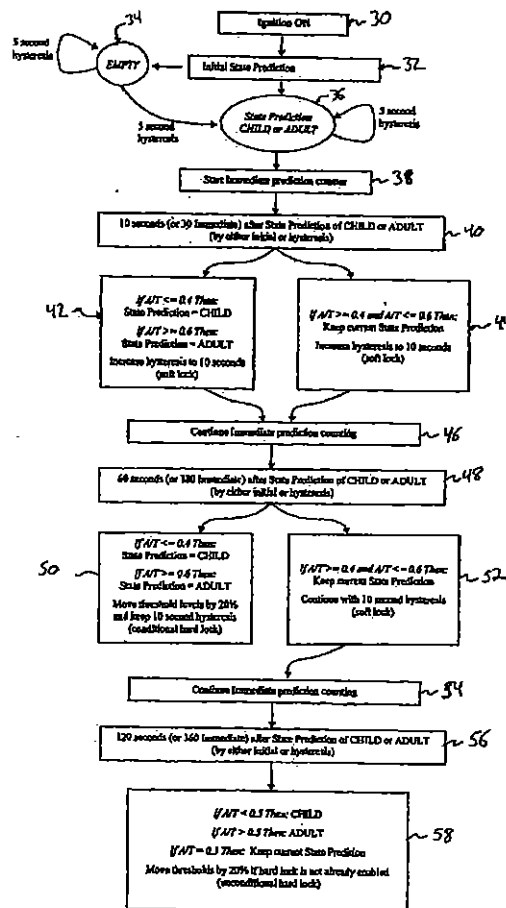
(22) Filed: Apr. 26, 2002

**Publication Classification**(51) Int. Cl.<sup>7</sup> ..... B60R 21/00

(52) U.S. Cl. .... 701/45; 180/271; 280/735

(57) **ABSTRACT**

Systems and methods for controlling the sensing of an occupant in a seating area are provided. The occupant is characterized as one of an adult, child or other category. One characterization change parameter, such as a hysteresis time period or thresholds for characterization, is applied for a first time period. After that time period, the characterization change parameter is changed. For example, if the characterization stays the same for ten seconds, the hysteresis is changed from five to ten seconds. As another example, if the characterization stays the same for one minute, the thresholds associated with that characterization are broadened to decrease the likelihood of a change in characterization. In some systems and methods, a confidence parameter or probability associated with the characterization is used to control the changes of the characterization change parameter. In some systems and methods, the characterization change parameter is reset in response to one of (a) a no occupant characterization or (b) characterizing the occupant as a different one of the at least two categories consecutively for a current hysteresis time period.





US 20040075259A1

(19) **United States**(12) **Patent Application Publication**  
Baba et al.(10) Pub. No.: **US 2004/0075259 A1**(43) Pub. Date: **Apr. 22, 2004**(54) **OCCUPANT DETECTING APPARATUS  
CAPABLE OF IMPROVING DETECTION  
ACCURACY****Related U.S. Application Data**

(62) Division of application No. 09/962,356, filed on Sep. 26, 2001, now Pat. No. 6,684,973.

(30) **Foreign Application Priority Data**

Sep. 29, 2000 (JP) ..... 2000-299047

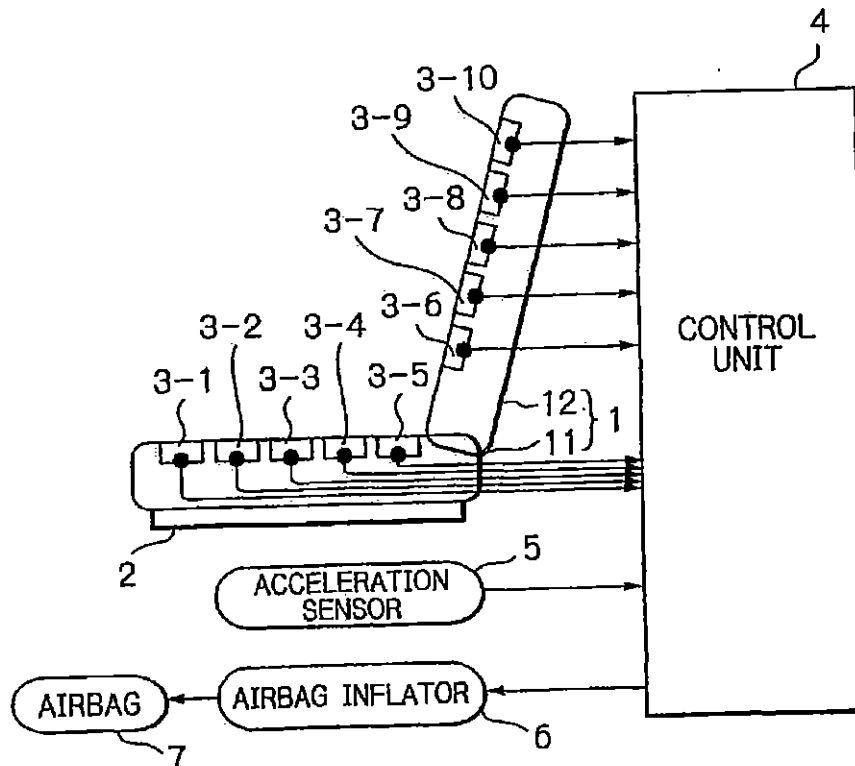
**Publication Classification**(51) Int. Cl.<sup>7</sup> ..... B60R 21/32

(52) U.S. Cl. .... 280/735

(75) Inventors: Satoshi Baba, Tokyo (JP); Kazunori Jinnō, Tokyo (JP); Hiroshi Oikawa, Tokyo (JP); Takashi Saito, Tokyo (JP); Naoki Saito, Tokyo (JP); Shingo Nagai, Tokyo (JP); Yoshinori Masuda, Tokyo (JP)

Correspondence Address:  
YOUNG & THOMPSON  
745 SOUTH 23RD STREET 2ND FLOOR  
ARLINGTON, VA 22202(57) **ABSTRACT**(73) Assignee: **HONDA ELESYS CO., LTD.,**  
TOCHIGI (JP)(21) Appl. No.: **10/682,991**(22) Filed: **Oct. 14, 2003**

In an occupant detecting apparatus for detecting an occupant seated on a passenger seat of a vehicle with an airbag for the occupant, a load sensor is provided in a bottom part of the seat. A plurality of first electric field sensors are provided in the bottom part of the seat, and a plurality of second electric field sensors are provided in a rear part of the seat. An airbag inflating permission control unit permits inflation of the airbag in accordance with output signals of the load sensor and the first and second electric field sensors.

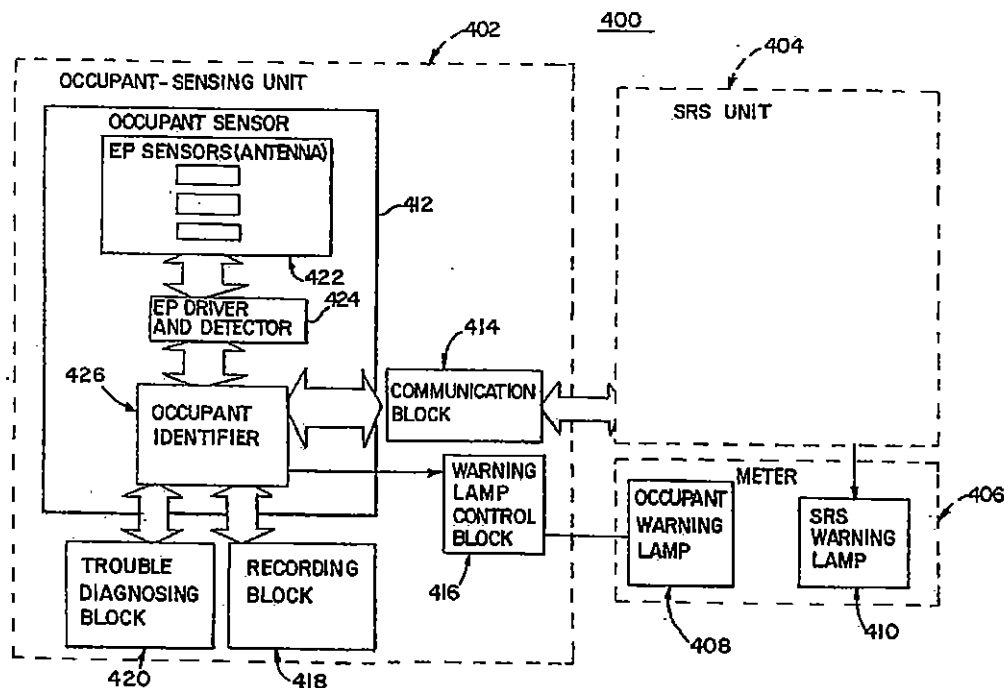




US 2004011201A1

(19) **United States**(12) **Patent Application Publication****Thompson et al.**(10) **Pub. No.: US 2004/011201 A1**(43) **Pub. Date: Jun. 10, 2004**(54) **WET SEAT PROTECTION FOR AIR BAG  
CONTROL OCCUPANT DETECTION****Publication Classification**(51) **Int. Cl.<sup>7</sup> ..... B60R 21/32**(52) **U.S. Cl. .... 701/45; 701/46; 280/735**(75) **Inventors: Gregory T. Thompson, Jonesboro, GA  
(US); Shih-An Shieh, Alpharetta, GA  
(US); Philip Rittmueller, St. Charles,  
IL (US)****Correspondence Address:****Craig A. Summerfield  
BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
Chicago, IL 60610 (US)**(73) **Assignee: Elesys North America, Inc.**(21) **Appl. No.: 10/682,592**(22) **Filed: Oct. 8, 2003****Related U.S. Application Data**(62) **Division of application No. 10/033,585, filed on Nov.  
2, 2001, now Pat. No. 6,696,948.**(57) **ABSTRACT**

A passenger detection system is provided. The passenger detection system utilizes an oscillation circuit that causes an antenna electrode to emit an electric field that is disrupted by the electrical characteristics of an object placed on the seat. This disruption alters the current and phase of the signal in the antenna electrode. By comparing the current flowing in the antenna electrode and/or the difference between the phase of the signal in the antenna electrode and the oscillation circuit output signal with predetermined threshold values, it is possible to detect the presence of a passenger in a reliable and inexpensive manner. Environmental sensors are used to make the determination more accurate. Humidity, moisture and/or grounding condition are detected and used to alter processing, values or calculations.







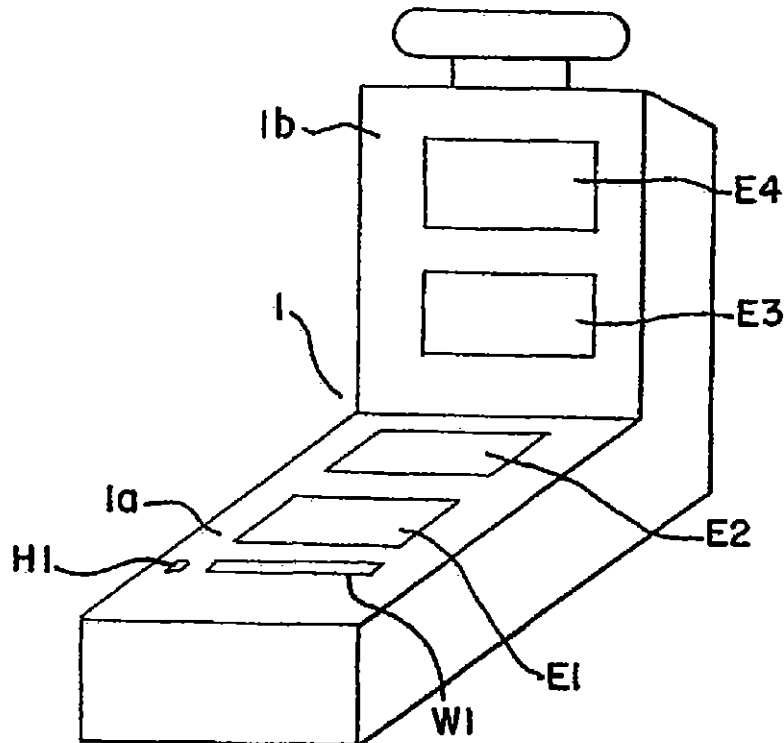
US 2004/0196150A1

(19) **United States**(12) **Patent Application Publication**

Shieh et al.

(10) **Pub. No.: US 2004/0196150 A1**(43) **Pub. Date: Oct. 7, 2004**(54) **MULTIPLE SENSOR VEHICLE OCCUPANT  
DETECTION FOR AIR BAG DEPLOYMENT  
CONTROL****Publication Classification**(51) **Int. Cl.<sup>7</sup>** ..... G08B 23/00(52) **U.S. Cl.** ..... 340/501; 340/562; 701/45(75) **Inventors:** Shiuh-An Shieh, Alpharetta, GA (US);  
Gregory T. Thompson, Johnsborough,  
GA (US)(57) **ABSTRACT**Correspondence Address:  
Craig A. Summerfield  
BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, IL 60610 (US)(73) **Assignee:** Elsys North America Inc.(21) **Appl. No.:** 10/422,329(22) **Filed:** Apr. 23, 2003**Related U.S. Application Data**(62) Division of application No. 09/798,788, filed on Mar.  
2, 2001.

A passenger detection system is provided. The passenger detection system utilizes an oscillation circuit that causes an antenna electrode to emit an electric field that is disrupted by the electrical characteristics of an object placed on the seat. This disruption alters the current and phase of the signal in the antenna electrode. By comparing the current flowing in the antenna electrode and/or the difference between the phase of the signal in the antenna electrode and the oscillation circuit output signal with predetermined threshold values, it is possible to detect the presence of a passenger in a reliable and inexpensive manner. Environmental sensors are used to make the determination more accurate. Humidity, moisture and/or grounding condition are detected and used to alter processing, values or calculations.





US 20040199318A1

(19) **United States**(12) **Patent Application Publication** (10) Pub. No.: **US 2004/0199318 A1****Shieh et al.**(43) Pub. Date: **Oct. 7, 2004**(54) **MULTIPLE SENSOR VEHICLE OCCUPANT  
DETECTION FOR AIR BAG DEPLOYMENT  
CONTROL****Publication Classification**(51) Int. Cl.<sup>7</sup> ..... G05D 1/00

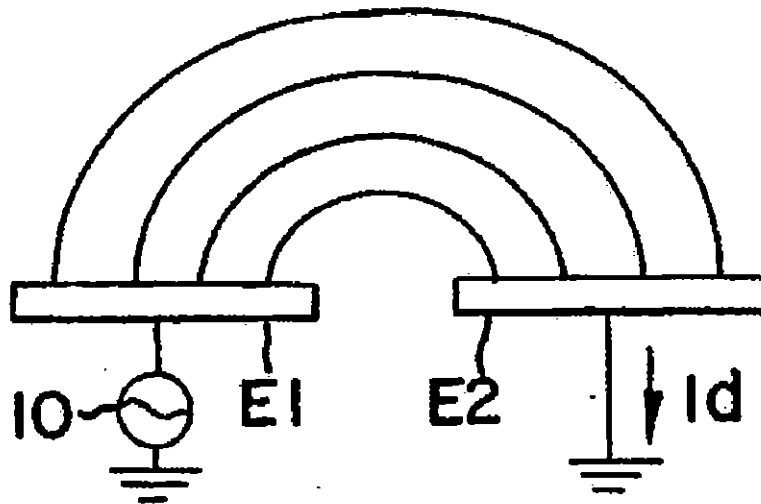
(52) U.S. Cl. .... 701/45; 180/271

(75) Inventors: **Shiuh-An Shieh, Alpharetta, GA (US);  
Gregory T. Thompson, Johnsborough,  
GA (US)**(57) **ABSTRACT****Correspondence Address:****Craig A. Summerfield  
BRINKS HOFER GILSON & LIONE  
P.O. BOX 10395  
CHICAGO, IL 60610 (US)**

A passenger detection system is provided. The passenger detection system utilized an oscillation circuit that causes an antenna electrode to emit an electric field that is disrupted by the electrical characteristics of an object placed on the seat. This disruption alters the current and phase of the signal in the antenna electrode. By comparing the current flowing in the antenna electrode and/or the difference between the phases of the signal in the antenna electrode and the oscillation circuit output signal with predetermined threshold values, it is possible to detect the presence of a passenger in a reliable and inexpensive manner. Environmental sensors are used to make the determination more accurate. Humidity, moisture and/or grounding condition are detected and used to alter processing, values or calculations.

(73) Assignee: **Elesys North America, Inc.**(21) Appl. No.: **10/826,568**(22) Filed: **Apr. 16, 2004****Related U.S. Application Data**

(63) Continuation of application No. 09/798,788, filed on Mar. 2, 2001.





US 20050121885A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2005/0121885 A1**

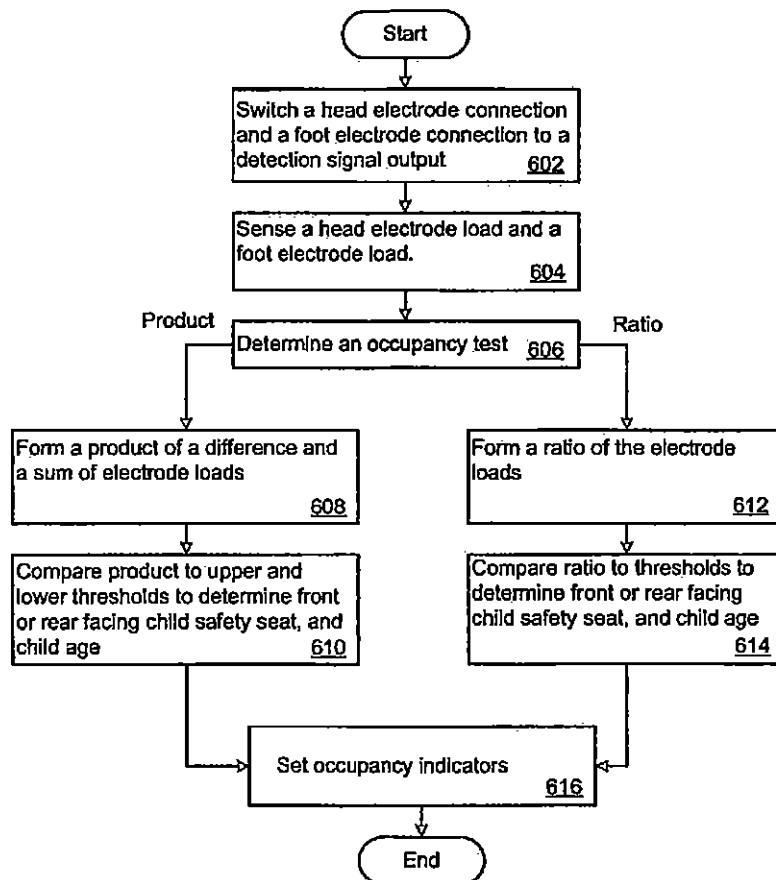
Shieh

(43) **Pub. Date: Jun. 9, 2005**(54) **VEHICLE OCCUPANT SENSING SYSTEM**(52) **U.S. Cl. .... 280/730.1**(75) **Inventor: Shihuh-An Shieh, Alpharetta, GA (US)**(57) **ABSTRACT**

Correspondence Address:  
**Brinks Hofer Gilson & Lione**  
**P.O. Box 10395**  
**Chicago, IL 60610 (US)**

(73) **Assignee: Elesys North America, Inc.**(21) **Appl. No.: 10/729,655**(22) **Filed: Dec. 5, 2003****Publication Classification**(51) **Int. Cl.<sup>7</sup> ..... B60R 21/22**

A vehicle occupancy sensing system provides a mechanism for determining whether a child is present in a vehicle. The sensing system may determine that an occupied front or rear facing child seat is present in an automobile, for example. To that end, the sensing system may employ a reliable electrode sensing system that may be conveniently installed in one or more locations in the vehicle seats. The sensing system thereby helps reduce occurrences of the potentially devastating consequences of unintentionally leaving a child in a vehicle.



600

# **EXHIBIT 7**

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

AUTOMOTIVE TECHNOLOGIES  
INTERNATIONAL, INC.,  
a Delaware corporation,

Case No. 1:06-CV-00187-GMS  
Hon. Judge Gregory M. Sleet

Plaintiff,

vs.

AMERICAN HONDA MOTOR COMPANY,  
a California corporation,  
ELESYS NORTH AMERICA, INC.,  
a Georgia corporation, and  
GENERAL MOTORS CORPORATION,  
a Delaware corporation,

Defendants.

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**DECLARATION OF ANDREW KOCHANOWSKI**

I, Andrew Kochanowski, under penalty of perjury do testify as follows:

1. I am the principal outside patent litigation attorney for Plaintiff ATI, Inc. I am a senior shareholder in Sommers Schwartz, P.C., a firm located in Southfield, Michigan. I have represented ATI in various patent-related matters since approximately 1999. I am familiar with all of the facts set forth in this Declaration.

2. I have been the primary counsel of record for ATI in every patent infringement litigation filed by ATI to date. Each of the cases filed by ATI in the Eastern District of Michigan were filed between 1999 and 2003, while ATI had an office and employees within this District. For example, at one point, ATI had both administrative offices and a research and prototype facility in Auburn Hills, Michigan, which staffed several full time employees and which held computers, equipment, and other company property. A primary ATI employee responsible for

both technical and administrative matters, Ray Piirainen, was based in Michigan. However, prior to the filing of the present case, ATI closed its Michigan offices. To the best of my knowledge, ATI had no Michigan-based employee at the time of filing. To the best of my knowledge, ATI had no place of business within the Eastern District of Michigan, nor indeed within the State of Michigan as a whole, prior to filing.

3. ATI's prior patent-related infringement cases concern technologies different from the one at issue in the present case. The first case filed involved an early ATI patent relating to side impact sensors. That case (Case No. 2:99-CV-75651) was initially filed in 1999. It was immediately voluntarily dismissed, and re-filed in May, 2000 as an omnibus case against virtually every automotive manufacturer OEM and numerous Tier I automotive suppliers based in the United States, Germany and Japan, captioned *ATI v BMW, et al*, Case No. 01-71700. A companion case arising out of a later single patent concerning the same technology, captioned *ATI v Delphi Automotive Systems Corporation, et al*, Case No. 04-72035 was filed in April, 2004. That case also has multiple parties, including United States, German and Japanese sensor suppliers. Neither of the patents in these cases is related to the patents in the present dispute before this Court. It should be noted that the omnibus case filed in 2000 was only decided on the District Court level in 2005 after five years of litigation, and is currently on appeal. The related matter filed in 2004, has been stayed pending that appeal, and is therefore not yet resolved. No discovery has taken place in that case.

4. The third case filed by ATI in the Eastern District of Michigan is *ATI v TRW Vehicle Safety Systems, Inc.*, Case No. 02-73572, filed in September, 2002. That case is still pending at the District Court level. The technology at issue there is side curtain airbags, and the patent at issue is unrelated to the patents at issue in the present case.

5. The fourth and last case filed for ATI in the Eastern District of Michigan involved a single patent for a bladder sensor, captioned *ATI v Delphi Corporation*, Case No. 03-71368. That case was filed April, 2003. The patent at issue in this litigation is mentioned by Defendants in their motion to transfer. It is one of at least 40 patents that relate to a common parent application, and is therefore only tangentially connected to the twelve patents at issue in the instant case. The technology in the *ATI/Delphi*, Case No. 03-71368, concerned a bladder sensor manufactured by Delphi Corporation. It does not concern the electric field sensors used by the Defendants in the present case.

6. In each of the four cases filed for ATI in the Eastern District of Michigan, the bulk of the defendants were in fact located or doing business in the Eastern District of Michigan. The omnibus case named all three Detroit-area OEM's (Ford, DaimlerChrysler and GM) as well as Detroit-based suppliers Visteon Corporation and Delphi Corporation. Virtually every other named supplier also had a significant presence in Detroit, including Siemens, Takata, Bosch, and Denso Corporation. The *ATI/Delphi* bladder case named a Detroit-based defendant. The *ATI/TRW* matter involved a party with extensive Detroit facilities for the technology at issue.

7. The *ATI/BMW*, et al litigation named General Motors and American Honda Motor Company, Inc., among many other parties, as Defendants. Both these parties hired counsel based in Washington, D.C., the law firm of Clifford Chance, LLP, as their lead defense counsel. I am familiar with the documents that were produced in that case and the document production practices employed by General Motors and Honda in that litigation. Documents were produced to us by Washington, D.C. counsel, in Washington, D.C. or by delivery by Federal Express or other overnight means from the Washington, D.C. law firm offices. These documents included documents collected in Japan and, to my understanding, in General Motors' Detroit-area

locations. Thus, these Defendants voluntarily assumed the cost of transporting documents from Detroit to Washington, D.C., only to have them shipped back to Detroit for document production.

8. Although GM and Honda chose to employ paper production in that case, it is now a typical practice in patent-related litigation to make documents available to the other party by digitized means. Typically a party collects documents responsive to particular document requests at whatever location and uses a local scanning service to make Adobe PDF or TIFF files of the scanned page. An electronic program typically places an electronic identification number on each page, and the collection is thereafter burned to a CD or DVD electronic media and produced to the other side by providing a copy of these CD's or DVD's rather than boxes and reams of paper. In that fashion, each side can see on a computer monitor each page and makes its own decision whether to physically print it out or not. This method has been used in every patent case that I have seen for several years. This is how ATI typically makes its documents available to opposing parties as well.

9. I am familiar with the correspondence between ATI and American Honda Motor Co., Inc. (to William R. Willen and Koichi Kondo), and to Honda Motor Co., Ltd., Haga-Gun, Tochigi, Japan (to Takeo Oi). The individuals at American Honda Motor Co., Inc. are addressed in Torrence, California, and Takeo Oi in Japan.

10. In every patent-infringement matter asserted on behalf of ATI, my firm has been joined by the Chicago law firm of Baniak, Pine & Gannon. That firm is again co-counsel with us in the present case. With respect to the present matter, Richard Herrmann of Morris, James, Hitchens & Williams, LLP, has also been retained to provide substantive advice and counsel.



Mr. Herrmann is viewed as a substantive and integral member of the team chosen to represent ATI in this multi-patent litigation.

FURTHER AFFIANT SAYETH NOT.



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ANDREW KOCHANOWSKI

June 20, 2006

# **EXHIBIT 8**



US005901978A

**United States Patent** [19]**Breed et al.**[11] **Patent Number:** **5,901,978**[45] **Date of Patent:** **\*May 11, 1999**[54] **METHOD AND APPARATUS FOR  
DETECTING THE PRESENCE OF A CHILD  
SEAT**[75] **Inventors:** **David S. Breed**, Boonton Township,  
Morris County, N.J.; **Wilbur E. Duvall**,  
Kimberling City, Mo.; **Wendell C.**  
**Johnson**, San Diego, Calif.[73] **Assignee:** **Automotive Technologies  
International, Inc.**, Denville, N.J.[\*] **Notice:** This patent is subject to a terminal dis-  
claimer.[21] **Appl. No.:** **09/084,641**[22] **Filed:** **May 26, 1998****Related U.S. Application Data**[63] Continuation-in-part of application No. 09/047,704, Mar.  
25, 1998, which is a continuation-in-part of application No.  
08/640,068, Apr. 30, 1996, Pat. No. 5,829,782, which is a  
continuation of application No. 08/239,978, May 9, 1994,  
abandoned.[51] **Int. Cl.<sup>6</sup>** ..... **B60R 21/32**[52] **U.S. Cl.** ..... **280/735; 180/272; 342/72;**  
701/45[58] **Field of Search** ..... **280/735, 734;**  
**180/272; 342/72, 70; 701/45, 49**[56] **References Cited****U.S. PATENT DOCUMENTS**

3,275,975	9/1966	King	.....	340/1
3,974,350	8/1976	Breed	.....	200/61.53
4,198,864	4/1980	Breed	.....	73/492
4,284,863	8/1981	Breed	.....	200/61.53
4,329,549	5/1982	Breed	.....	200/61.45 M
4,573,706	3/1986	Breed	.....	280/734
4,683,373	7/1987	Tupman	.....	180/272
4,900,880	2/1990	Breed	.....	200/61.45 M
4,933,515	6/1990	Behr et al.	.....	200/61.45 M
4,995,639	2/1991	Breed	.....	280/735
5,071,160	12/1991	White et al.	.....	280/735
5,074,583	12/1991	Fujita et al.	.....	280/735

5,118,134	6/1992	Mattes et al.	.....	280/735
5,330,226	7/1994	Gentry et al.	.....	280/735
5,366,241	11/1994	Kithil	.....	280/735
5,398,185	3/1995	Omura	.....	280/735
5,413,378	5/1995	Steffens, Jr. et al.	.....	280/735
5,446,661	8/1995	Gioutsos et al.	.....	280/735

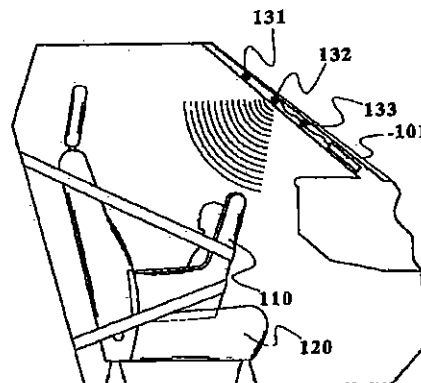
(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

0 669 227	8/1995	European Pat. Off.	.....	
3802159	8/1989	Germany	.....	280/735
4023109	1/1992	Germany	.....	
1-197151	8/1989	Japan	.....	180/287
3-42337	2/1991	Japan	.....	180/273
3-159838	7/1991	Japan	.....	
94/22603	10/1994	WIPO	.....	280/735
95/27635	10/1995	WIPO	.....	

**OTHER PUBLICATIONS**"Trends in Sensing Frontal Impacts", D. Breed et al., SAE  
Paper No. 890750, Feb., 1989."A Critique of Single Point Sensing", D. Breed et al., SAE  
Paper No. 920124, Feb., 1992."Mechanism of Injury From Air Bag Deployment Loads",  
Lau et al., *Accid. Anal. & Prev.*, vol. 25, No. 1, pp. 29-45,  
1993.*Primary Examiner*—Peter C. English*Attorney, Agent, or Firm*—Samuel Shipkovitz[57] **ABSTRACT**

Method and system for detecting the presence of the child seat on a seat in which information about contents of the seat is obtained and a signal is generated based on any contents of the seat, a different signal being generated for different contents of the seat when such contents are present on the seat. The signal is analyzed in order to determine whether the contents of the seat include a child seat, and in a preferred embodiment, a child seat in a rear-facing orientation. Another system within the vehicle may be affected or controlled based on the determination of whether a child seat is present on the seat. The analysis of the signal is preferably by pattern recognition techniques that can recognize and thus identify the contents of the seat.

**21 Claims, 22 Drawing Sheets**



US006242701B1

(12) **United States Patent**  
Breed et al.

(10) Patent No.: **US 6,242,701 B1**  
(45) Date of Patent: **Jun. 5, 2001**

(54) **APPARATUS AND METHOD FOR MEASURING WEIGHT OF AN OCCUPYING ITEM OF A SEAT**

(75) Inventors: **David S. Breed**, Boonton Township, Morris County, NJ (US); **Wilbur E. DuVall**, Kimberling City, MO (US); **Jeffrey L. Morin**, Grosse Ile, MI (US)

(73) Assignee: **Automotive Technologies International, Inc.**, Denville, NJ (US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/193,209**

(22) Filed: **Nov. 17, 1998**

#### Related U.S. Application Data

(63) Continuation-in-part of application No. 09/128,490, filed on Aug. 4, 1998, now Pat. No. 6,078,854, which is a continuation-in-part of application No. 08/970,822, filed on Nov. 14, 1997, now Pat. No. 6,081,757, and a continuation-in-part of application No. 08/474,783, filed on Jun. 7, 1995, now Pat. No. 5,822,707.

(51) Int. Cl.<sup>7</sup> ..... **B60R 21/22; B60R 21/32; G01G 19/52; G01G 3/14**

(52) U.S. Cl. .... **177/144; 177/210 R; 180/273; 280/735; 701/45**

(58) Field of Search ..... **177/136, 144, 177/210 R, 254, 211; 180/273; 280/735; 701/45; 340/667**

(56) **References Cited**

#### U.S. PATENT DOCUMENTS

3,275,975	9/1966	King	180/272
4,519,652	5/1985	Kamijo	180/268
4,625,320	11/1986	Ishikawa	382/104
4,645,233	2/1987	Brusc et al.	280/753
4,698,571	10/1987	Mizuta et al.	318/466
4,811,226	3/1989	Shinohara	318/466

5,008,946	4/1991	Ando	180/167
5,071,160	12/1991	White et al.	280/735
5,074,583	12/1991	Fujita	280/735
5,086,652 *	2/1992	Kropp	73/767
5,090,493 *	2/1992	Bergan et al.	177/211
5,118,134	6/1992	Mattes	280/735
5,125,686	6/1992	Yano	280/801.2
5,155,685	10/1992	Kishi et al.	364/424.05
5,161,820	11/1992	Vollmer	280/730

(List continued on next page.)

#### FOREIGN PATENT DOCUMENTS

950560 *	10/1999	(EP)	177/144
2289332	11/1995	(GB)	280/735

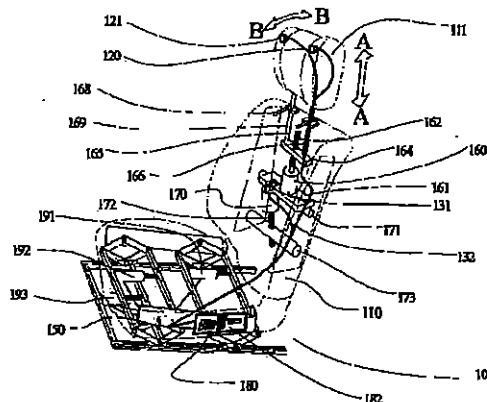
Primary Examiner—Randy W. Gibson

(74) Attorney, Agent, or Firm—Brian Roffe

(57) **ABSTRACT**

An apparatus for measuring the weight of an occupying item of a seat including a support structure for mounting the seat to a substrate. The apparatus includes a strain gage transducer mounted on the support structure and arranged to provide a measurement of the strain of the support structure at the location at which it is mounted. A control system is coupled to the strain gage transducer for determining the weight of the occupying item of the seat based on the strain of the support structure measured by the strain gage transducer. The weight measuring apparatus is used in a seat adjustment apparatus for adjusting a seat in a passenger compartment of a vehicle including wave sensors for transmitting waves into the passenger compartment toward the seat, receiving reflected waves from the passenger compartment and generating an output representative of the reflected waves received by the wave sensors, and a processor for receiving the outputs from the wave sensors and the weight measuring apparatus and evaluating the seated-state of the seat based thereon. The processor, e.g., directs a control unit to cause a portion of the seat to move based on the evaluation of the seated-state of the seat or to affect the deployment of an airbag.

**40 Claims, 30 Drawing Sheets**





US006325414B2

(12) **United States Patent**  
Breed et al.

(10) Patent No.: **US 6,325,414 B2**  
(45) Date of Patent: **\*Dec. 4, 2001**

(54) **METHOD AND ARRANGEMENT FOR CONTROLLING DEPLOYMENT OF A SIDE AIRBAG**

(75) Inventors: **David S. Breed, Boonton Township, Morris County, NJ (US); Wilbur E. DuVall, Kimberling City, MO (US); Wendell C. Johnson, San Diego, CA (US)**

(73) Assignee: **Automotive Technologies International Inc., Denville, NJ (US)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/737,138**

(22) Filed: **Dec. 14, 2000**

#### Related U.S. Application Data

(63) Continuation of application No. 09/437,535, filed on Nov. 10, 1999, which is a continuation-in-part of application No. 09/047,703, filed on Mar. 25, 1998, now Pat. No. 6,039,139, which is a continuation-in-part of application No. 08/640,068, filed on Apr. 30, 1996, now Pat. No. 5,829,782, which is a continuation of application No. 08/239,978, filed on May 9, 1994, now abandoned, which is a continuation-in-part of application No. 08/040,978, filed on Mar. 31, 1993, now abandoned, said application No. 09/047,703, is a continuation-in-part of application No. 08/905,877, filed on Aug. 4, 1997, now Pat. No. 6,186,537, which is a continuation of application No. 08/505,036, filed on Jul. 21, 1995, now Pat. No. 5,653,462, which is a continuation of application No. 08/040,978.

(51) Int. Cl.<sup>7</sup> ..... **B60R 21/32**

(52) U.S. Cl. .... **280/735; 180/271; 180/272; 180/273; 180/282**

(58) Field of Search ..... **280/735; 180/271, 180/272, 273**

#### (56) References Cited

##### U.S. PATENT DOCUMENTS

3,275,975	9/1966	King	340/1
3,974,350	8/1976	Breed	200/61
4,198,864	4/1980	Breed	73/492
4,284,863	8/1981	Breed	200/61.53
4,329,549	5/1982	Breed	200/61.45 M
4,573,706	3/1986	Breed	280/734
4,683,373	7/1987	Tupman	180/272
4,900,880	2/1990	Breed	200/61.45 M
4,933,515	6/1990	Behr et al.	200/61.45 M
4,995,639 *	2/1991	Breed	280/735
5,071,160 *	12/1991	White et al.	280/735
5,074,583 *	12/1991	Fujita et al.	280/735
5,118,134	6/1992	Mattes	280/735
5,222,761	6/1993	Kuji et al.	280/735
5,322,323	6/1994	Ohno et al.	280/735
5,330,226	7/1994	Gentry et al.	280/735
5,366,241	11/1994	Kithil	280/735

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Primary Examiner—Lanna Mai

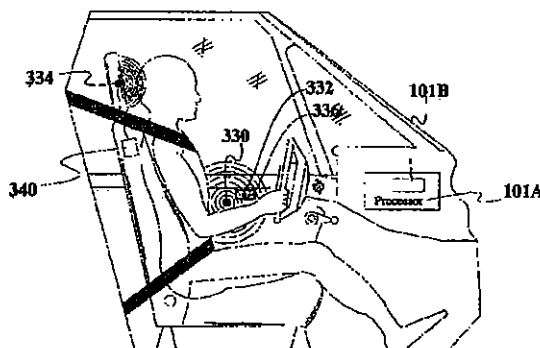
Assistant Examiner—Toan To

(74) Attorney, Agent, or Firm—Brain Roffe

#### (57) ABSTRACT

Arrangement and method for controlling deployment of a side airbag to protect a vehicular occupant during a crash. The presence and/or position of the occupant is/are determined and deployment of the airbag is controlled based thereon. A transducer receives waves from a space above a seat portion of the seat and a signal representative of the presence and/or position of the occupant is generated based on the received waves. The transducer may transmit waves into the space above the seat portion. The transducer may be mounted in a door of the vehicle and possibly adjacent the airbag module. Deployment of the airbag can be suppressed, the time at which deployment of the airbag starts, the rate of gas flow into the airbag, the rate of gas flow from the airbag and/or the rate of deployment of the airbag is/are controlled based on the presence and/or position of the occupant.

41 Claims, 22 Drawing Sheets





US006397136B1

(12) **United States Patent**  
Breed et al.

(10) Patent No.: **US 6,397,136 B1**  
(45) Date of Patent: **May 28, 2002**

(54) **SYSTEM FOR DETERMINING THE OCCUPANCY STATE OF A SEAT IN A VEHICLE**

(75) Inventors: **David S. Breed**, Boonton Township, Morris County, NJ (US); **Wendell Johnson**, San Diego, CA (US); **Wilbur E. Duvall**, Kimberling City, MO (US); **Jeffrey L. Morin**, Grosse Ile, MI (US); **Kunhong Xu**, Rochester Hills, MI (US); **Andrew J. Varga**, Farmington Hills, MI (US)

(73) Assignee: **Automotive Technologies International Inc.**, Denville, NJ (US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **09/474,147**

(22) Filed: **Dec. 29, 1999**

(Under 37 CFR 1.47)

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/382,406, filed on Aug. 24, 1999, which is a continuation-in-part of application No. 08/919,823, filed on Aug. 28, 1997, now Pat. No. 5,943,295, which is a continuation-in-part of application No. 08/798,029, filed on Feb. 6, 1997, now abandoned.  
(60) Provisional application No. 60/136,163, filed on May 27, 1999.

(51) Int. Cl.<sup>7</sup> ..... **B60R 21/22**

(52) U.S. Cl. .... **701/45; 280/735; 180/273**

(58) Field of Search ..... **701/45, 46, 47, 701/49; 280/734, 735; 180/268, 271, 273; 318/286, 466, 467, 468**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,275,975 A 9/1966 King ..... 180/98  
4,691,569 A 9/1987 Sato et al. .... 73/596

4,881,270 A 11/1989 Knecht et al. .... 382/17  
4,906,940 A 3/1990 Greene et al. .... 382/16  
5,008,946 A 4/1991 Ando ..... 382/2  
5,031,154 A 7/1991 Watanabe ..... 367/8  
5,071,160 A 12/1991 White et al. .... 280/735  
5,074,583 A 12/1991 Fujita et al. .... 280/735  
5,118,134 A 6/1992 Maltes et al. .... 280/735  
5,181,254 A 1/1993 Schweizer et al. .... 382/1

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

EP 0669227 8/1995

**OTHER PUBLICATIONS**

Integrated CAE Modeling of Intelligent Restraint Systems, M. Murad et al., SAE Technical Paper Series No. 2000-01-0606, Mar. 6-9, 2000.

Primary Examiner—William A. Cuchlinski, Jr.

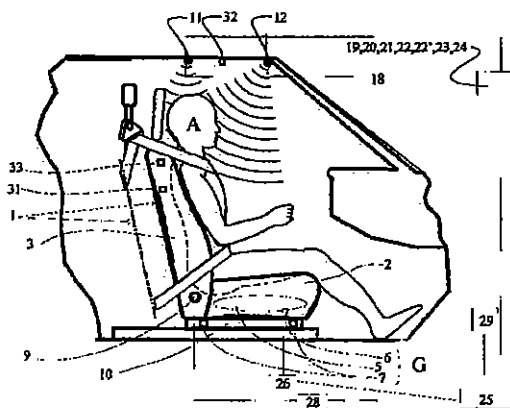
Assistant Examiner—Gertrude Arthur

(74) Attorney, Agent, or Firm—Brian Roffe

(57) **ABSTRACT**

System for determining the occupancy of a seat in a vehicle using a variety of transducers and pattern recognition technologies and techniques that applies to any combination of transducers that provide information about seat occupancy. These include weight sensors, capacitive sensors, inductive sensors, ultrasonic, optical, electromagnetic, motion, infrared, and radar among others. The system includes a processor coupled to the transducers for receiving the data from the transducers and processing the data to obtain an output indicative of the current occupancy state of the seat. An algorithm is resident in the processor and is created from a plurality of data sets, each representing a different occupancy state of the seat and being formed from data from the transducers while the seat is in that occupancy state. The algorithm produces the output indicative of the current occupancy state of the seat upon inputting a data set representing the current occupancy state of the seat and being formed from data from the transducers. The algorithm may be a neural network or neural fuzzy algorithm generated by an appropriate algorithm-generating program.

**70 Claims, 12 Drawing Sheets**



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US006869100B2

(12) **United States Patent**  
**Breed et al.**

(10) **Patent No.:** **US 6,869,100 B2**  
 (45) **Date of Patent:** **\*Mar. 22, 2005**

(54) **METHOD AND APPARATUS FOR CONTROLLING AN AIRBAG**

(75) **Inventors:** **David S. Breed**, Boonton Township, Morris County, NJ (US); **Wilbur E. DuVall**, Kimberling City, MO (US); **Wendell C. Johnson**, Signal Hill, CA (US)

(73) **Assignee:** **Automotive Technologies International, Inc.**, Denville, NJ (US)

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 76 days.

This patent is subject to a terminal disclaimer.

(21) **Appl. No.:** **10/234,067**

(22) **Filed:** **Sep. 3, 2002**

(65) **Prior Publication Data**

US 2003/0001368 A1 Jan. 2, 2003

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/778,137, filed on Feb. 7, 2001, now Pat. No. 6,513,830, which is a continuation of application No. 08/905,877, filed on Aug. 4, 1997, now Pat. No. 6,186,537, which is a continuation of application No. 08/505,036, filed on Jul. 21, 1995, now Pat. No. 5,653,462, which is a continuation of application No. 08/040,978, filed on Mar. 31, 1993, now abandoned, which is a continuation-in-part of application No. 07/878,571, filed on May 5, 1992, now abandoned.

(51) **Int. Cl.<sup>7</sup>** ..... **B60R 21/32**

(52) **U.S. CL** ..... **280/735**

(58) **Field of Search** ..... **280/734, 735; 701/45**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,275,975 A	9/1966	King	340/1
3,974,350 A	8/1976	Breed	200/61
4,198,864 A	4/1980	Breed	73/492
4,284,863 A	8/1981	Breed	200/61.53
4,329,549 A	5/1982	Breed	200/61.45 M
4,573,706 A	3/1986	Breed	280/734
4,625,329 A	11/1986	Ishikawa et al.	382/1
4,683,373 A	7/1987	Tupman	180/272

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

DE	3737554	5/1989	
DE	4112579	10/1991	
DE	4023109	1/1992	
JP	3-159838	7/1991	
WO	94/22693	10/1994	280/735
WO	01/04648	1/2001	

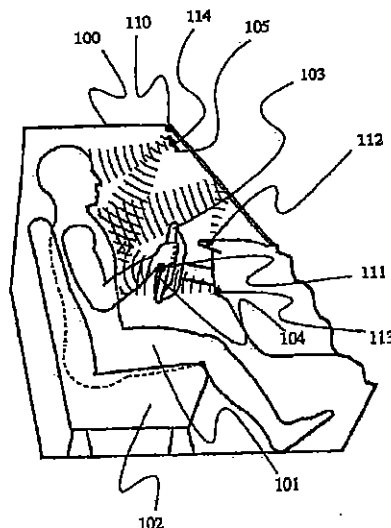
*Primary Examiner*—Ruth Han

(74) *Attorney, Agent, or Firm*—Brian Roffe

(57) **ABSTRACT**

Method and system for controlling deployment of an airbag in which the position of an occupant to be protected by deployment of the airbag is determined, the probability that a crash requiring deployment of the airbag is occurring is assessed and deployment of the airbag enabled in consideration of the determined position of the occupant and the assessed probability that a crash is occurring. Deployment of the airbag may be enabled by analyzing the assessed probability relative to a pre-determined threshold whereby deployment of the airbag is enabled only when the assessed probability is greater than the threshold. The threshold may be adjusted based on the determined position of the occupant.

**62 Claims, 9 Drawing Sheets**







US006757602B2

(12) **United States Patent**  
Breed et al.

(10) Patent No.: **US 6,757,602 B2**(45) Date of Patent: **Jun. 29, 2004**

(54) **SYSTEM FOR DETERMINING THE OCCUPANCY STATE OF A SEAT IN A VEHICLE AND CONTROLLING A COMPONENT BASED THEREON**

(75) Inventors: David S. Breed, Boonton Township, Morris County, NJ (US); Wilbur E. DuVall, Kimberling City, MO (US); Wendell C. Johnson, Signal Hill, CA (US); Jeffrey L. Morin, Lincoln Park, MI (US); Kunhong Xu, Rochester Hills, MI (US); Michael E. Kussul, Kyiv (UA); Tie-Qi Chen, Windsor (CA)

(73) Assignee: Automotive Technologies International, Inc., Denville, NJ (US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 29 days.

(21) Appl. No.: 10/234,436

(22) Filed: Sep. 3, 2002

(65) **Prior Publication Data**

US 2003/0036835 A1 Feb. 20, 2003

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/853,118, filed on May 10, 2001, now Pat. No. 6,445,988, which is a continuation-in-part of application No. 09/382,406, filed on Aug. 24, 1999, now Pat. No. 6,529,809, which is a continuation-in-part of application No. 09/474,147, filed on Dec. 29, 1999, now Pat. No. 6,397,136, which is a continuation-in-part of application No. 08/798,029, filed on Feb. 6, 1997, now abandoned, which is a continuation-in-part of application No. 08/919,823, filed on Aug. 28, 1997, now Pat. No. 5,943,295.

(60) Provisional application No. 60/136,163, filed on May 27, 1999.

(51) Int. Cl.<sup>7</sup> ..... G06F 7/00

(52) U.S. Cl. .... 701/45; 180/268; 180/271; 280/735

(58) Field of Search ..... 701/45, 46, 47; 180/268, 271, 272, 273; 280/735

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,482,314 A \* 1/1996 Corrado et al. .... 280/735  
5,528,698 A \* 6/1996 Kamei et al. .... 382/100  
6,324,453 B1 \* 11/2001 Breed et al. .... 701/45  
6,445,988 B1 \* 9/2002 Breed et al. .... 701/45

**OTHER PUBLICATIONS**

Breed et al.; Audio reception control arrangement and method for a vehicle; U.S. 2001/0038698, Nov. 8, 2001.\*

\* cited by examiner

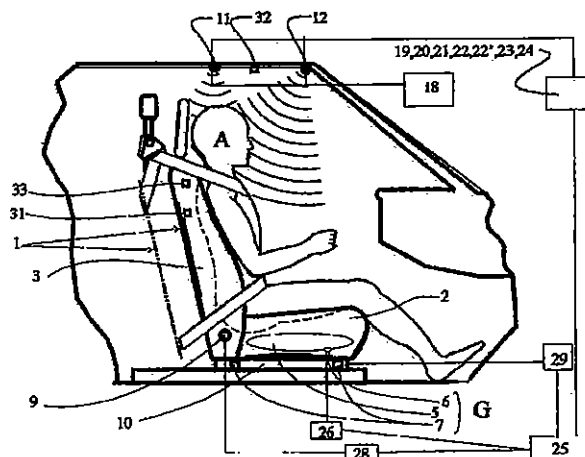
*Primary Examiner*—Gertrude A. Jeanglaude

(74) *Attorney, Agent, or Firm*—Brian Roffe

(57) **ABSTRACT**

Method for controlling an occupant protection device in a vehicle in which data is acquired from at least one sensor relating to an occupant in a seat to be protected by the occupant protection device, the type of occupant is classified based on the acquired data and when the occupant is classified as an empty seat or a rear-facing child seat, deployment of the occupant protection device is disabled or adjusted. Otherwise, the size of the occupant is classified based on the acquired data, the position of the occupant is determined by one of a plurality of algorithms selected based on the classified size of the occupant using the acquired data, each algorithm being applicable for a specific size of occupant. Deployment of the occupant protection device is disabled or adjusted when the determined position of the occupant is more likely to result in injury to the occupant if the occupant protection device were to deploy. The algorithms may be pattern recognition algorithms such as neural networks.

**56 Claims, 50 Drawing Sheets**





US006712387B1

(12) **United States Patent**  
Breed et al.

(10) Patent No.: **US 6,712,387 B1**  
(45) Date of Patent: **\*Mar. 30, 2004**

(54) **METHOD AND APPARATUS FOR CONTROLLING DEPLOYMENT OF A SIDE AIRBAG**

(75) Inventors: **David S. Breed**, Boonton Township, Morris County, NJ (US); **Wilbur E. DuVall**, Kimberling City, MO (US); **Wendell C. Johnson**, San Diego, CA (US)

(73) Assignee: **Automotive Technologies International, Inc.**, Denville, NJ (US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/437,535**

(22) Filed: **Nov. 10, 1999**

#### Related U.S. Application Data

(63) Continuation-in-part of application No. 09/047,703, filed on Mar. 25, 1998, now Pat. No. 6,039,139, which is a continuation-in-part of application No. 08/905,876, filed on Aug. 4, 1997, now Pat. No. 5,848,802, which is a continuation of application No. 08/505,036, filed on Jul. 21, 1995, now Pat. No. 5,653,462, and a continuation-in-part of application No. 08/640,068, filed on Apr. 30, 1996, now Pat. No. 5,829,782, which is a continuation of application No. 08/239,978, filed on May 9, 1994, now abandoned, which is a continuation-in-part of application No. 08/040,978, filed on Mar. 31, 1993, now abandoned, which is a continuation-in-part of application No. 07/878,571, filed on May 5, 1992, now abandoned.

(51) Int. Cl.<sup>7</sup> ..... **B60R 21/32**

(52) U.S. Cl. .... **280/735; 180/272; 180/273**

(58) Field of Search ..... **280/735; 180/271, 180/272, 273**

#### (56) References Cited

##### U.S. PATENT DOCUMENTS

3,275,975 A 9/1966 King ..... 340/1

(List continued on next page.)

##### FOREIGN PATENT DOCUMENTS

DE 3802159 8/1989 ..... 280/735

(List continued on next page.)

##### OTHER PUBLICATIONS

"Trends in Sensing Frontal Impacts", D. Breed et al., SAE Paper No. 890750, Feb., 1989.

(List continued on next page.)

Primary Examiner—Paul N. Dickson

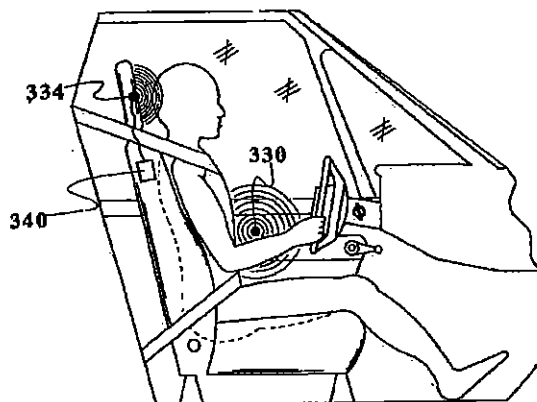
Assistant Examiner—Toan C To

(74) Attorney, Agent, or Firm—Brian Roffe

#### (57) ABSTRACT

An arrangement and method for controlling deployment of a side airbag from an airbag module to protect an occupant in a seat of a vehicle in a crash. The presence of an occupant and/or position of the occupant or a part thereof is/are determined and deployment of the side airbag is controlled based thereon. To determine the presence of the occupant and/or position of the occupant or part thereof, a transducer is arranged to receive waves from a space above a seat portion of the seat and a signal representative of the presence and/or position of the occupant is generated based on the waves received by the transducer. The transducer can be designed to transmit waves into the space above the seat portion of the seat which are also receivable thereby. The transducer may be mounted in a door of the vehicle to enable the distance between the occupant and the door to be determined, i.e., to determine whether the occupant is leaning against the door, and possibly adjacent the airbag module if it is situated in the door. In these cases, deployment of the side airbag can be suppressed. In the alternative the time at which deployment of the side airbag starts, the rate of gas flow into the side airbag, the rate of gas flow out of the side airbag and/or the rate of deployment of the side airbag is/are controlled.

38 Claims, 22 Drawing Sheets





US006942248B2

(12) **United States Patent**  
Breed et al.

(10) Patent No.: **US 6,942,248 B2**  
(45) Date of Patent: **Sep. 13, 2005**

(54) **OCCUPANT RESTRAINT DEVICE CONTROL SYSTEM AND METHOD**

(75) Inventors: **David S. Breed**, Boonton Township, Morris County, NJ (US); **Wilbur E. DuVall**, Kimberling City, MO (US); **Wendell C. Johnson**, Signal Hill, CA (US)

(73) Assignee: **Automotive Technologies International, Inc.**, Denville, NJ (US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 302 days.

(21) Appl. No.: **10/114,533**

(22) Filed: **Apr. 2, 2002**

(65) **Prior Publication Data**

US 2002/0140214 A1 Oct. 3, 2002

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 10/058,706, filed on Jan. 28, 2002, which is a continuation-in-part of application No. 09/891,432, filed on Jun. 26, 2001, now Pat. No. 6,513,833, which is a continuation-in-part of application No. 09/838,920, filed on Apr. 20, 2001, now Pat. No. 6,778,672, which is a continuation-in-part of application No. 09/563,556, filed on May 3, 2000, now Pat. No. 6,474,683, which is a continuation-in-part of application No. 09/437,535, filed on Nov. 10, 1999, now Pat. No. 6,712,387, which is a continuation-in-part of application No. 09/047,703, filed on Mar. 25, 1998, now Pat. No. 6,039,139, which is a continuation of application No. 08/640,068, filed on Apr. 30, 1996, now Pat. No. 5,829,782, which is a continuation of application No. 08/239,978, filed on May 9, 1994, now abandoned, which is a continuation-in-part of application No. 08/040,978, filed on Mar. 31, 1993, now abandoned, which is a continuation-in-part of application No. 07/878,571, filed on May 5, 1992, now abandoned, said application No. 09/047,703, is a continuation-in-part of application No. 08/905,876, filed on Aug. 4, 1997, now Pat. No. 5,848,802, which is a continuation of application No. 08/505,036, filed on Jul. 21, 1995, now Pat. No. 5,653,462, which is a continuation of application No. 08/040,978, filed on Mar. 31, 1993, now abandoned, which is a continuation-in-part of

application No. 07/878,571, filed on May 5, 1992, now abandoned, said application No. 10/058,706, is a continuation-in-part of application No. 09/639,299, filed on Aug. 15, 2000, which is a continuation-in-part of application No. 08/905,877, filed on Aug. 4, 1997, now Pat. No. 6,186,537, which is a continuation of application No. 08/505,036, said application No. 09/639,299, is a continuation-in-part of application No. 09/409,625, filed on Oct. 1, 1999, now Pat. No. 6,270,116, which is a continuation-in-part of application No. 08/905,877, said application No. 09/639,299, is a continuation-in-part of application No. 09/448,337, filed on Nov. 23, 1999, now Pat. No. 6,283,503, which is a continuation-in-part of application No. 08/905,877, said application No. 09/639,299, is a continuation-in-part of application No. 09/448,338, filed on Nov. 23, 1999, now Pat. No. 6,168,186, which is a continuation-in-part of application No. 08/905,877, said application No. 10/058,706, is a continuation-in-part of application No. 09/543,678, filed on Apr. 7, 2000, which is a continuation-in-part of application No. 09/047,704, filed on Mar. 25, 1998, now Pat. No. 6,116,638, which is a continuation-in-part of application No. 08/640,068, said application No. 09/047,704, is a continuation-in-part of application No. 08/905,876, filed on Aug. 4, 1997, now Pat. No. 5,848,802, which is a continuation-in-part of application No. 08/505,036.

(51) Int. CL<sup>7</sup> ..... **B60R 21/32**

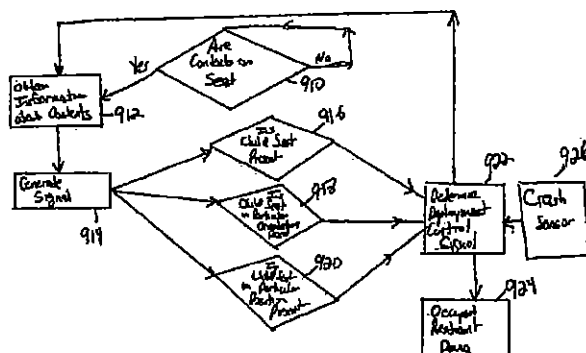
(52) U.S. Cl. .... **280/735; 180/272; 701/45**

(58) Field of Search ..... **280/735, 734; 180/272; 701/45, 49**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,275,975 A	9/1966	King	340/1
3,974,350 A	8/1976	Breed	200/61
4,198,864 A	4/1980	Breed	73/492
4,284,863 A	8/1981	Breed	200/61.53
4,329,549 A	5/1982	Breed	200/61.45 M
4,573,706 A	3/1986	Breed	280/734
4,683,373 A	7/1987	Tupman	180/272
4,732,157 A	3/1988	Kaplan et al.	128/696
4,900,880 A	2/1990	Breed	200/61.45 M
4,933,515 A	6/1990	Behr et al.	200/61.45 M
4,984,651 A	1/1991	Grosch et al.	180/268
4,995,639 A	2/1991	Breed	280/735
5,071,160 A	12/1991	White et al.	280/735
5,074,583 A	12/1991	Fujita et al.	280/735
5,101,831 A	4/1992	Koyama et al.	128/687
5,118,134 A	6/1992	Mattes et al.	280/735
5,161,820 A	11/1992	Vollmer	280/730





US006958451B2

(12) **United States Patent**  
**Breed et al.**

(10) Patent No.: **US 6,958,451 B2**  
(45) Date of Patent: **Oct. 25, 2005**

(54) **APPARATUS AND METHOD FOR MEASURING WEIGHT OF AN OCCUPYING ITEM OF A SEAT**

(75) Inventors: **David S. Breed**, Boonton Township, Morris County, NJ (US); **Wilbur E. Du Vall**, Kimberling City, MO (US); **Wendell C. Johnson**, Signal Hill, CA (US)

(73) Assignee: **Automotive Technologies International, Inc.**, Denville, NJ (US)

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 67 days.

(21) Appl. No.: **10/174,803**

(22) Filed: **Jun. 19, 2002**

(65) **Prior Publication Data**

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**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/901,879, filed on Jul. 9, 2001, now Pat. No. 6,555,766, which is a continuation of application No. 09/849,559, filed on May 4, 2001, which is a continuation-in-part of application No. 09/193,209, filed on Nov. 17, 1998, now Pat. No. 6,242,701, which is a continuation-in-part of application No. 09/128,490, filed on Aug. 4, 1998, now Pat. No. 6,078,854, which is a continuation-in-part of application No. 08/970,822, filed on Nov. 14, 1997, now Pat. No. 6,081,757, and a continuation-in-part of application No. 08/474,783, filed on Jun. 7, 1995, now Pat. No. 5,822,701, application No. 10/174,803, which is a continuation-in-part of application No. 09/849,559, which is a continuation-in-part of application No. 09/193,209, which is a continuation-in-part of application No. 09/128,490, which is a continuation-in-part of application No. 08/970,822, and a continuation-in-part of application No. 08/474,783, application No. 10/174,803, which is a continuation-in-part of application No. 09/849,558, filed on May 4, 2001, now Pat. No. 6,653,577, which is a continuation-in-part of application No. 09/193,209, which is a continuation-in-part of application No. 09/128,490, which is a continuation-in-part of application No. 08/970,822, and a continuation-in-part of application No. 08/474,783, application No. 10/174,803, which is a continuation-in-part of application No. 09/770,974, filed on Jan. 26, 2001, now Pat. No. 6,648,367, and a continuation-in-part of application No. 09/767,020, filed on Jan. 23, 2001, now Pat. No. 6,533,316, and a

continuation-in-part of application No. 09/753,186, filed on Jan. 2, 2001, now Pat. No. 6,484,080, application No. 10/174,803, which is a continuation-in-part of application No. 09/500,346, filed on Feb. 8, 2000, now Pat. No. 6,442,504, which is a continuation-in-part of application No. 09/128,490, which is a continuation-in-part of application No. 08/970,822, and a continuation-in-part of application No. 08/474,783.

(51) Int. Cl.<sup>7</sup> ..... **B60R 21/32**

(52) U.S. Cl. .... **177/1; 177/144; 702/101; 180/273; 280/735; 701/45**

(58) Field of Search ..... **701/45; 702/101; 702/102; 180/273; 280/735; 177/136, 144, 210 R, 1**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

3,275,975 A 9/1966 King ..... 180/272  
4,519,652 A 5/1985 Kamijo ..... 180/268

(Continued)

**FOREIGN PATENT DOCUMENTS**

EP 950560 10/1999 ..... 177/144  
EP 0990565 4/2000

(Continued)

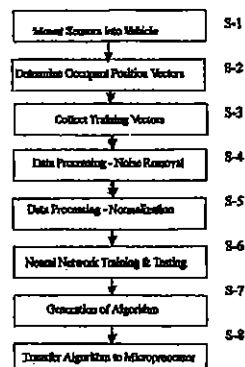
*Primary Examiner*—Randy W. Gibson

(74) *Attorney, Agent, or Firm*—Brian Roffe

(57) **ABSTRACT**

Arrangement and method for determining weight of an occupying item in a seat including one or more weight sensors arranged to obtain a measurement of the force applied to the seat, a forcing function determination arrangement for measuring a forcing function of the seat and a processor coupled to the weight sensor(s) and forcing function determination arrangement for receiving the measurement of the force applied to the weight sensor(s) and the measurement of the forcing function from the forcing function measurement system and determining the weight of the occupying item based thereon. The forcing function determination arrangement may include an accelerometer and measures effects on the seat caused by load of a seatbelt associated with the seat and/or effects on the seat of road roughness, steering maneuvers, and a vehicle suspension system.

**39 Claims, 36 Drawing Sheets**





USQ06484080B2

(12) **United States Patent**  
**Breed**

(10) Patent No.: **US 6,484,080 B2**  
(45) Date of Patent: **\*Nov. 19, 2002**

(54) **METHOD AND APPARATUS FOR CONTROLLING A VEHICULAR COMPONENT**

(75) Inventor: **David S. Breed, Beonton Township, Morris County, NJ (US)**

(73) Assignee: **Automotive Technologies International Inc., Denville, NJ (US)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 45 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/753,186**

(22) Filed: **Jan. 2, 2001**

(65) **Prior Publication Data**

US 2001/0002451 A1 May 31, 2001

**Related U.S. Application Data**

- (63) Continuation-in-part of application No. 09/137,918, filed on Aug. 20, 1998, now Pat. No. 6,175,787, which is a continuation-in-part of application No. 08/476,077, filed on Jun. 7, 1995, now Pat. No. 5,809,437
- (60) Provisional application No. 60/231,378, filed on Sep. 8, 2000
- (51) Int. Cl.<sup>7</sup> ..... **G06F 7/00**
- (52) U.S. Cl. .... **701/36; 701/29; 701/34**
- (58) Field of Search ..... **701/29, 30, 34, 701/36, 45; 340/438, 439; 307/9.1**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,128,005 A 12/1978 Armston et al. .... 73/117.3  
4,418,388 A 11/1983 Allgar et al. .... 364/431.01  
4,817,418 A 4/1989 Asami et al. .... 73/118.1  
4,989,146 A 1/1991 Imaja ..... 701/29  
5,041,976 A 8/1991 Marko et al. .... 364/424.03

5,123,017 A 6/1992 Simpkins et al. .... 714/26  
5,164,901 A 11/1992 Blackburn et al. .... 701/47  
5,313,407 A 5/1994 Tierani et al. .... 364/508  
5,325,082 A 6/1994 Rodriguez ..... 340/438  
5,333,240 A 7/1994 Matsumoto et al. .... 706/20  
5,400,018 A 3/1995 Scholl et al. .... 340/825.54  
5,406,502 A 4/1995 Harnamety et al. .... 364/551.01  
5,420,794 A 5/1995 James ..... 701/117  
5,442,553 A 8/1995 Parrillo ..... 364/424.04  
5,481,906 A 1/1996 Nagayoshi et al. .... 73/116  
5,594,740 A 1/1997 LaDug ..... 979/59  
5,754,965 A 5/1998 Hagenbuch

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

WO 00/29257 5/2000

**OTHER PUBLICATIONS**

Liubakka et al., "Failure Detection Algorithm Applied To Control System Design For Improved Diagnostic And Reliability", SAE Technical Paper Series, 02-29 To 04-04, 1988, pp. 1-7.

(List continued on next page.)

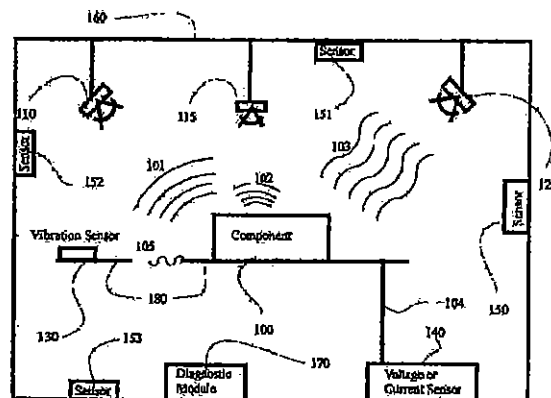
Primary Examiner—Yonel Beaulieu

(74) Attorney, Agent, or Firm—Brian Roffe

(57) **ABSTRACT**

Control system and method for controlling a part of the vehicle in which sensor systems are mounted at different locations on the vehicle, each sensor system providing a measurement related to a state of the sensor system or a measurement related to a state of the mounting location. A processor coupled to the sensor systems diagnoses the state of the vehicle based on the measurements of the sensor system, e.g., by the application of a pattern recognition technique. The processor controls the part based at least in part on the diagnosed state of the vehicle. At least one of the sensor systems may be a high dynamic range accelerometer or a sensor selected from a group consisting of a single axis acceleration sensor, a double axis acceleration sensor, a triaxial acceleration sensor and a gyroscope, and may optionally include an RFID response unit.

62 Claims, 7 Drawing Sheets







(12) **United States Patent**  
**Breed**

(10) Patent No.: **US 6,850,824 B2**  
(45) Date of Patent: **Feb. 1, 2005**

(54) **METHOD AND APPARATUS FOR CONTROLLING A VEHICULAR COMPONENT**

(75) Inventor: **David S. Breed, Boonton Township, Morris County, NJ (US)**

(73) Assignee: **Automotive Technologies International, Inc., Denville, NJ (US)**

(\*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/613,453**

(22) Filed: **Jul. 3, 2003**

(65) **Prior Publication Data**

US 2004/0039509 A1 Feb. 26, 2004

**Related U.S. Application Data**

- (63) Continuation of application No. 10/188,673, filed on Jul. 3, 2002, now Pat. No. 6,738,697, which is a continuation-in-part of application No. 10/174,709, filed on Jun. 19, 2002, now Pat. No. 6,735,506, and a continuation-in-part of application No. 09/753,186, filed on Jan. 2, 2001, now Pat. No. 6,484,080, which is a continuation-in-part of application No. 09/137,918, filed on Aug. 20, 1998, now Pat. No. 6,175,787, which is a continuation-in-part of application No. 08/476,077, filed on Jun. 7, 1995, now Pat. No. 5,809,437, and a continuation-in-part of application No. 10/079,065, filed on Feb. 19, 2002, now Pat. No. 6,662,642, which is a continuation-in-part of application No. 09/765,558, filed on Jan. 19, 2001, now Pat. No. 6,748,797.
- (60) Provisional application No. 60/231,378, filed on Sep. 8, 2000, provisional application No. 60/269,415, filed on Feb. 16, 2001, provisional application No. 60/291,311, filed on May 16, 2001, and provisional application No. 60/304,013, filed on Jul. 9, 2001.

- (51) Int. Cl.<sup>7</sup> ..... **G06F 7/00**  
(52) U.S. Cl. .... **701/36; 701/29; 701/34**  
(58) Field of Search ..... **701/29, 34, 36, 701/45; 307/9.1**

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- 4,128,005 A 12/1978 Amston et al. .... 73/117.3  
4,418,388 A 11/1983 Allgor et al. .... 364/431.01

- 4,817,418 A 4/1989 Asami et al. .... 73/118.1  
4,989,146 A 1/1991 Imajo ..... 701/29  
5,041,976 A 8/1991 Marko et al. .... 364/424.03  
5,123,017 A 6/1992 Sampkins et al. .... 714/26  
5,164,901 A 11/1993 Blackburn et al. .... 701/47  
5,213,407 A 5/1994 Tiernan et al. .... 364/508  
5,325,082 A 6/1994 Rodriguez ..... 340/438  
5,333,240 A 7/1994 Matsumoto et al. .... 706/20  
5,400,018 A 3/1995 Scholl et al. .... 340/825.54  
5,406,502 A 4/1995 Haramaty et al. .... 364/551.01

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

- DE 3839959 11/1988  
WO 00/29257 5/2000

**OTHER PUBLICATIONS**

Liubakka et al., "Failure Detection Algorithms Applied To Control System Design For Improved Diagnostics And Reliability", SAE Technical Paper Series, 02-29 To 04-04, 1988, pp. 1-7.  
James et al., "Microprocessor Based Data Acquisition for Analysis Of Engine Performance", SAE Technical Paper Series, Feb. 23-27, 1987, pp. 1-9.  
Engine Monitoring Based on Normalized Vibration Spectra, NASA Tech Briefs, MFS-26529, 1994.

(List continued on next page.)

Primary Examiner—Yonel Beaulieu

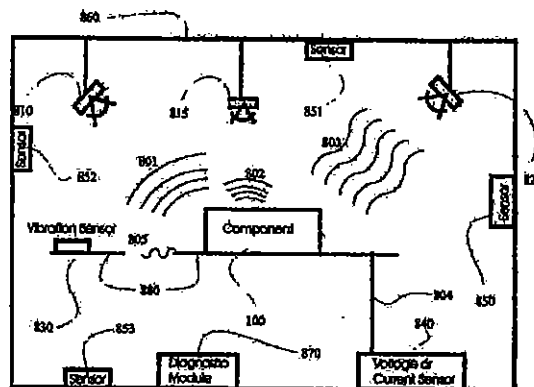
(74) Attorney, Agent, or Firm—Brim Roffe

(57)

**ABSTRACT**

Control system and method for controlling an occupant restraint system in which a plurality of electronic sensors are mounted at different locations on the vehicle, each sensor providing a measurement related to a state thereof or a measurement related to a state of the mounting location. A processor is coupled to the sensors and diagnoses the state of the vehicle based on the measurements of the sensors. The processor controls the occupant restraint system based at least in part on the diagnosed state of the vehicle in an attempt to minimize injury to an occupant.

**31 Claims, 39 Drawing Sheets**



# **EXHIBIT 9**

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Week of June 19, 2004; Vol. 165, No. 25, p. 392

## Sixth Sense

### Probing the world by means of electric auras

Peter Weiss

A decade ago, Philip H. Rittmueller was a man on a mission. By the early 1990s, the automobile industry knew that airbags, while successful at saving lives in crashes, could also prove deadly to children and small adults (SN: 9/26/98, p. 206:

[http://www.sciencenews.org/pages/sn\\_arc98/9\\_26\\_98/bob3.htm](http://www.sciencenews.org/pages/sn_arc98/9_26_98/bob3.htm)). As an engineer with NEC Technologies Automotive Electronics Division at that time, Rittmueller was looking for a technological fix for this lethal threat. Yet none of the approaches Rittmueller knew about for the automatic sizing up of car seat occupants—including weight sensing, ultrasonic scanning, and optical imaging—seemed good enough. "I was looking under all sorts of rocks," Rittmueller recalls.

Then, in the fall of 1994 at the Massachusetts Institute of Technology, Rittmueller found the right rock. He was visiting the university's hotbed of invention, known as the Media Lab, when he saw what looked like a throne flanked by two lighted Plexiglas poles, and he viewed a startling video showing how such a "spirit chair" was used in magic shows by the famous duo Penn and Teller.

In the video, Penn sat in the chair. As he gestured wildly with both hands and feet, drums, trumpets, cymbals, and other musical sounds blared out. No wires linked Penn to the synthesizers making the sounds, yet the device sensed his every move.

When Rittmueller tried the gadget in the lab, its speed and three-dimensional awareness were "amazing," he recalls. If such a wireless-sensing system could be adapted to track an occupant of an automobile, he figured, he would be on his way to a superior airbag-controller that could determine the size and position of a passenger or driver and then judge whether it was dangerous to fire the airbag to its full extent.

On the spot, Rittmueller and the chair's designers started sketching possible airbag-related designs. Today, that collaboration between MIT and Rittmueller's Suwanee, Ga.-based automotive-electronics company, now called Elesys North America, is bearing its first fruit—an airbag controller that's already in some cars and soon to be introduced in many more.

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The commercial use of the technology is expected to mushroom beyond the airbag niche, say developers of electric field imaging, the heart of the new technology. "We're letting objects know what's around them," says Media Lab physicist Neil A. Gershenfeld. In this increasingly automated world, any technology that can do that reliably, cheaply, and autonomously could be useful in many places.

### Taking charge

Imaging things in the world by means of electric fields actually started out as nature's own technology.

Several species of fish in South America and Africa generate and detect weak electric fields. Because small fish, larvae, and other prey perturb the electric fields around the field-generating fish, voltage-sensitive cells in their skin can detect the objects. Weakly electric fish, as they are called, also use electric signals to recognize and attract potential mates.



*E-FISH. This elephant nose, a human hand-size Congo River fish of the *Campylomormyrus* genus, generates weak electric fields for detecting prey and mates.*  
C. Hopkins

Electric field sensing has made it into the technoscape too. Anyone who has pushed one of those elevator buttons that responds to a finger's touch without itself moving has triggered an electric field sensor. A weak electric field continuously emanates from such buttons. When a finger contacts the button, that field becomes distorted. This causes an electric current increase in the button's circuit that's then interpreted by the elevator's control circuitry as, say, the "go to floor 10" command.

Similar ways of using electric fields to sense nearby objects have been in use for roughly a century. Back in the 1920s, the Russian inventor Leon Theremin created one of the first electronic musical instruments, and it was based on electric field sensing.

Today, in addition to elevators, electric field sensing shows up in touch screens and pads on computers and stud finders that locate wooden supports in walls. Still, "That's the old-fashioned measurement," notes Media Lab physicist Joseph A. Paradiso.

Media Lab researchers in the early 1990s realized that it might be possible to use electric fields to image objects, not just to detect their presence. The scientists weren't looking for crisp optical imaging, but rather a fuzzier result that would be good enough to make out sizes, shapes, and positions of objects. This imprecise approach saves processing time and resources, says Joshua R. Smith of Intel Research in Seattle.

In 1991, the MIT researchers began adding electronics to conventional musical instruments, such as cellos and violins, so that computers could detect players' bowing or other movements and produce electronic sounds to accompany the natural tones of the instrument. Tod Machover, a Media Lab composer and electronic-instrument developer, and Gershenfeld built the first such

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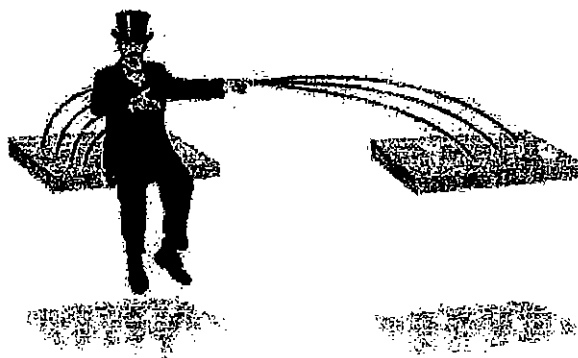
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hyperinstrument, a hypercello for Yo-Yo Ma.

Working on a wireless bow for a hyperviolin in 1993, Gershenfeld, Paradiso, and their colleagues ran into some puzzling observations stemming from unexpected ways that objects, including people, can perturb electric fields.

In some configurations, for example, part of a person or object would intercept a portion of a field emanating from an electrode. "It's like you're casting a shadow," Paradiso notes.

In other configurations, some conductive object—for instance, a person—would effectively meld with the field-emitting electrode, thereby changing the geometry of the system. "You're like the antenna. You're like a piece of metal," Paradiso adds.



*HOLD THE LINE. Objects and electric fields interact in ways that are proving useful for recognizing and tracking things and people. An electrically conductive body, such as a person, near an electric-field source (above) can become a source itself. A conductive intruder who touches the ground (below) will shadow or shunt away some field.*  
Dean MacAdam

What might have loomed as engineering annoyances, however, instead became new opportunities to gather information about the sizes, shapes, conductivities, masses, and positions of objects in a field-filled space. The Media Lab researchers designed and built arrays of electrodes and associated circuitry, as well as mathematical models and computer algorithms, to analyze the signals. "People started doing electric field interfaces all over [at the Media Lab]," Paradiso recalls. In honor of the natural masters of electric field sensing, the researchers gave their equipment names such as Smart Fish, Lazy Fish, Scan Fish, and School of Fish.



Dean MacAdam

### **Fields of dreams**

By the mid-1990s, the MIT team had developed not only the spirit chair but other gadgets that responded to gestures: electrode-equipped tubular frames and a field-sensing wall, for example. These converted arm and body motions into signals that drove music synthesizers. Other efforts led to musical toys for children, though they're not yet on the market.

In another development, a stage backdrop for the juggling troupe The Flying Karamazov Brothers used electric field sensing of the performers to create the illusion that unlikely objects were being juggled though they were merely images projected on a screen in response to the performers' movements.

Along less-theatrical lines, electrodes hidden in a table monitored hand positions and motions to determine how best to display information on screens projected on the table. As part of a 1999 architectural exhibit at the Museum of Modern Art in New York City, the table provided details about the exhibit.

In each of these devices, the MIT researchers implemented crude imaging. A long-term goal for the imaging technology, they say, is to create more detailed representations of three-dimensional contours of people or objects within a particular space.

Although images derived from electric field data will always be "kind of blurry," the technique can pinpoint objects in space, Smith says. Some devices that locate the center of a hand or other object "can be precise to millimeters, or even better," he notes.

The MIT team hasn't been alone in devising prototypes in which spatial awareness derives from electric fields. In 1990, for instance, scientists at Bell Laboratories in Murray Hill, N.J., patented a music-making baton that sends radio signals to electrodes linked to a synthesizer.

"There are pieces of [electric-field imaging] that are new and pieces that are based on preexisting and familiar technologies," but the end result is new,

Smith notes. Until recently, the benefits of using arrays of electrodes in the shadow and antenna configurations had been largely overlooked, he says.

Because electric field interactions are so complex, the math needed to extract actual images of objects from electric-field data is trickier than the already-challenging calculations needed to make pictures from the data collected in computer assisted tomography scans or magnetic resonance images.

As a MIT graduate student, Smith worked out ways to simplify that math so that computers could carry it out in reasonable amounts of time. He has used this achievement in his Field Mouse, a prototype computer-input device that recognizes the gestures of a person's hand.

### **Fish in chips**

In 1999, only a few years after Rittmueller waded into the creative tumult at MIT with his quest for an airbag controller, Honda began rolling out models equipped with side airbags controlled by the electric field imaging systems. This was a voluntary step on Honda's part, since the U.S. government doesn't regulate deployment of side airbags.

As of last year, however, front airbags on more and more cars sold in the United States have to distinguish small drivers and passengers from big ones. Most carmakers now pass the new standards by means of mechanical weight-sensing systems in the cars' seats. Starting this summer, however, two General Motors models will feature electric field sensing systems. A French car seat maker, Faurecia, has also demonstrated an electric field-based system.

Working together with MIT and Rittmueller's group, electronics giant Motorola has developed an electric field imaging microchip. It went into production for automotive use in 2002. The device takes the place of about 90 discrete electronic components, says electrical engineer Kevin S. Anderson of Freescale, a Phoenix-based Motorola spin-off.

Since February 2003, the chip has also been on the market for general-purpose electric field imaging beyond automotive applications. In January, the chip won a "Product of the Year" award from *Electronic Products* magazine.

The availability of the chip appears to be creating ferment among technology developers. "We've shipped millions of the devices," mostly for the automotive market, Anderson says. Twenty products incorporating the chip are imminent, and hundreds more are in the conceptual stage, he adds.

"People are finding a lot of neat things to apply [the chip] to—things we never thought of ourselves," says Ron DeLong, a recently retired engineer who led the development of the chip for Motorola. Although companies aren't yet revealing these products, the Media Lab developments over the past decade hint at what's in store.

Also, a contest last year by electronics magazine *Circuit Cellar* suggests other potential uses of the new chip. Winning entries included an antitheft briefcase, a sleep-monitoring system, and an electronic whoopee cushion. Other products might rely on electric fields to detect water from leaky pipes or a pot boiling

over.

Meanwhile, an architectural firm in Los Angeles has revealed plans to use the chip in the pavement of a building's courtyard to detect passersby as part of a public-art installation. The system will control an electronic-lighting display depicting faux shadows of passersby moving across the face of the building.

As popular as the chip is, it implements only some of the capabilities explored by the MIT team. A next-generation device will provide more-refined measurements, DeLong says. Microchips connected to advanced electrodes in walls and floors could locate and count people as they move, says Anderson.

By then, the human technology may finally rival nature's. As DeLong puts it, "We're trying to get to where we're as good as those fish."

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#### **References:**

Cantrell, T. 2003. Good vibrations. *Circuit Cellar* 155(June):79-80. Available at <http://www.circuitcellar.com/library/print/0603/cantrell155/index.htm>.

DeLong, R. In press. Imaging with electric fields. *IEEE Spectrum*.

DeLong, R., C. Booth, and B. Thorsen. In press. Designing a non-contact appliance control panel. *Appliance*.

DeLong, R. 2003. Easy e-field imaging. *Machine Design* (May 22):S16-S18. Available at <http://www.machinedesign.com/asp/viewSelectedArticle.asp?strArticleId=55767&strSite=MDSite>.

Eady, F. 2003. E-field evaluation module. *Circuit Cellar* 155(June):60-64. Available at <http://www.circuitcellar.com/library/print/0603/eady155/>.

#### **Further Readings:**

Undated. Motorola 3D imaging chip to change the car, home and workplace. Motorola Corp. Multi-media news release. Available at <http://www.motorola.com/content/1,3306,1708,00.html>.

# **EXHIBIT 10**

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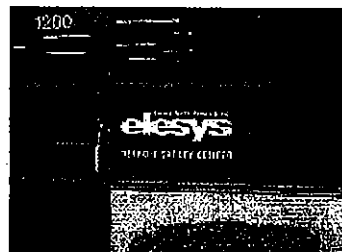
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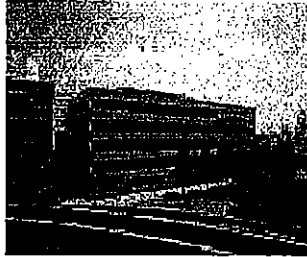
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# **EXHIBIT 11**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

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DISTRICT OF DELAWARE  
2006 JUN 16 PM 4:27

AUTOMOTIVE TECHNOLOGIES  
INTERNATIONAL, INC.,  
a Delaware corporation,

Plaintiff,

vs.

C.A. No. 06 - 391

HYUNDAI MOTOR AMERICA,  
a Delaware corporation,  
BMW OF NORTH AMERICA, LLC,  
a Delaware limited liability company and  
KIA MOTORS AMERICA, INC.,  
a Delaware corporation,

**JURY TRIAL DEMANDED**

Defendants.

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff, Automotive Technologies International, Inc., as its Complaint against Defendants Hyundai Motor America, a Delaware Corporation, BMW of North America, LLC, a Delaware limited liability company, and Kia Motors America, Inc., a Delaware Corporation, alleges as follows:

**PARTIES, JURISDICTION AND VENUE**

1. Plaintiff Automotive Technologies International, Inc. ("ATT") is a Delaware corporation.
2. Defendant Hyundai Motors America ("Hyundai") is a Delaware corporation based in California. Hyundai is a manufacturer and importer of vehicles in the United States.
3. Defendant BMW of North America, LLC, ("BMW") is a Delaware limited liability company. BMW is a manufacturer and importer of vehicles in the United States.

4. Defendant Kia Motors America, Inc., ("Kia") is a Delaware corporation based in California. Kia is a manufacturer and importer of vehicles in the United States.

5. This is an action for patent infringement. All of the acts of patent infringement complained of in this Complaint occurred, among other places, within this judicial district.

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §1338(a) and 28 U.S.C. §1331 over this infringement action, arising under the Patent Act, 35 U.S.C. §1 et seq., including §§ 271 and 281-285.

7. Venue is proper in this Court pursuant to 28 U.S.C. §1391(b), (c) and 28 U.S.C. §1400(b). The Court has personal jurisdiction over each of the parties.

#### **GENERAL ALLEGATIONS**

8. The following patents have been issued duly and legally to Plaintiff ATI on the following dates:

- a. U.S. Patent No. 5,901,978 entitled "Method and Apparatus for Detecting the Presence of a Child Seat," issued May 11, 1999. (Exhibit 1)
- b. U.S. Patent No. 6,325,414 entitled "Method and Arrangement for Controlling Deployment of a Side Airbag," issued December 4, 2001. (Exhibit 2)
- c. U.S. Patent No. 6,422,595 entitled "Occupant Position Sensor and Method and Arrangement for Controlling a Vehicular Component Based on an Occupant's Position," issued July 23, 2002. (Exhibit 3)
- d. U.S. Patent No. 6,484,080 entitled "Method and Apparatus for Controlling a Vehicular Component," issued November 19, 2002. (Exhibit 4)
- e. U.S. Patent No. 6,712,387 entitled "Method and Apparatus for Controlling Deployment of a Side Airbag," issued March 30, 2004. (Exhibit 5)
- f. U.S. Patent No. 6,757,602 entitled "System For Determining the Occupancy State of a Seat in a Vehicle and Controlling a Component Based Thereon," issued June 29, 2004. (Exhibit 6)

- g. U.S. Patent No. 6,833,516 entitled "Apparatus and method for controlling a vehicular component," issued December 21, 2004. (Exhibit 7)
- h. U.S. Patent No. 6,850,824 entitled "Method and Apparatus for Controlling a Vehicular Component," issued February 1, 2005. (Exhibit 8)
- i. U.S. Patent No. 6,869,100 entitled "Method and Apparatus for Controlling an Airbag," issued March 22, 2005. (Exhibit 9)
- j. U.S. Patent No. 6,942,248 entitled "Occupant Restraint Device Control System and Method," issued September 13, 2005. (Exhibit 10)
- k. U.S. Patent No. 6,958,451 entitled "Apparatus and Method for Measuring Weight of an Occupying Item of a Seat," issued October 25, 2005. (Exhibit 11)

9. All of the patents set forth in paragraph 8, a-k (collectively, "the ATI Patents"), are valid, subsisting, enforceable, and are presently owned by ATI and have been owned by ATI for all times relevant hereto.

10. The general subjects covered by the ATI Patents include, but are not limited to occupant sensing, position sensing, weight sensing, child seat sensing, rear-facing child seat sensing, airbag deployment, airbag suppression, and related systems as used in a vehicle containing airbags.

11. Defendant Hyundai makes, uses, imports and/or sells vehicles with certain occupant presence and/or detection and/or position systems and/or child seat presence detection systems, including, upon information and belief, systems made by IEE Automotive, Inc., including the Passenger Presence Detection ("PPD") system made by IEE. In certain vehicles the PPD system works in conjunction with seat track sensors. In all vehicles the system comprises and controls, or works in conjunction with an electronic controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief, the PPD system has been used by Hyundai at least in the following models:

Year	Model
2000	Hyundai Sonata
2001	Hyundai Sonata
2002	Hyundai Sonata
2003	Hyundai Sonata
2004	Hyundai Sonata
2006	Hyundai Sonata
2001	Hyundai Elantra
2002	Hyundai Elantra
2003	Hyundai Elantra
2004	Hyundai Elantra
2005	Hyundai Elantra
2006	Hyundai Elantra
2001	Hyundai XG300
2004	Hyundai Santa Fe

12. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system(s) described above, infringe the ATI Patents. Defendant Hyundai markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

13. Defendant Kia makes, uses, and sells vehicles with certain occupant presence and/or detection and/or position systems and/or child seat presence detection systems, which, upon information and belief, are made by or employ the IEE system set forth above in paragraph 11, including specifically the PDD and Occupant Classification ("OC") systems made by IEE. The system in Kia vehicles comprises and controls, or works in conjunction with an electronic controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief the IEE systems are supplied in at least the following Kia vehicles:

<b>Year</b>	<b>Model</b>
2002	Kia Optima
2004	Kia Sedona
2005	Kia Sorento
2002	Kia Sportage
2004	Kia Amanti
2005	Kia Spectra
2005	Kia Spectra5
2006	Kia Rio
2006	Kia Rio5

14. Upon information and belief, Kia makes and sells other models than those listed in Paragraph 13 with an occupant sensing system using IEE products. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents set forth in paragraph 8. Defendant Kia markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

15. Defendant BMW makes, uses, and sells vehicles with certain occupant presence and/or detection and/or position systems and/or child seat presence detection systems, which, upon information and belief, are made by or employ the IEE system set forth above in paragraph 11, including specifically the PDD and OS systems. These are referred to as “occupant sensor intelligent,” or “SBE” or similar name by BMW. The system in BMW vehicles comprises and controls, or works in conjunction with an electronic controller for, among other things, suppressing or allowing the deployment of side airbags and side curtain airbags in a vehicle equipped with the system(s). Upon information and belief the IEE systems are supplied in at least the following BMW vehicles:

<b>Year</b>	<b>Model</b>
2003-6	3-series
2003-6	5-series
2003-6	7-series
2003-6	Z4
2004-6	6-series
2003-6	X3 and X5

16. Upon information and belief, BMW makes and sells other models than those listed in Paragraph 15 with an occupant sensing system using IEE products. Each of the vehicles listed above, and those vehicles not specifically listed but which use the system described above, infringe the ATI Patents set forth in paragraph 8. Defendant BMW markets and sells these models to the public. Defendant will continue to do so unless enjoined by this Court.

#### **DAMAGES**

17. As a result of the above infringement, ATI has been damaged, and will continue to be damaged unless the infringement is enjoined by this Court.

#### **RELIEF REQUESTED**

Wherefore, Plaintiff Automotive Technologies International, Inc. prays for relief against the Defendants as follows:

1. That U.S. Patent No. 5,901,978 be adjudged infringed by the Defendants, and that the infringement be held to be willful;
2. That U.S. Patent No. 6,325,414 be adjudged infringed by the Defendants, and that the infringement be held to be willful;
3. That U.S. Patent No. 6,422,595 be adjudged infringed by the Defendants, and that the infringement be held to be willful;
4. That U.S. Patent No. 6,484,080 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

5. That U.S. Patent No. 6,712,387 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

6. That U.S. Patent No. 6,757,602 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

7. That U.S. Patent No. 6,833,516 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

8. That U.S. Patent No. 6,850,824 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

9. That U.S. Patent No. 6,869,100 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

10. That U.S. Patent No. 6,942,248 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

11. That U.S. Patent No. 6,958,451 be adjudged infringed by the Defendants, and that the infringement be held to be willful;

12. That Plaintiff be awarded compensatory damages for past infringement by the Defendants in an amount no less than a reasonable royalty, and a sum to be determined at trial, and that said damages be trebled in view of the wilful and deliberate nature of the infringement;

13. That all Defendants, their officers, agents, servants, employees and attorneys, and other persons in active concert or participation with them be preliminarily and then permanently enjoined from further infringement of the patents-in-suit;

14. That all Defendants be ordered to deliver to Plaintiff for destruction all infringing products and systems in their possession;



15. That this case be declared an exceptional case under 35 U.S.C. §285 as to each Defendant and that Plaintiff be awarded its attorney fees incurred in this action;

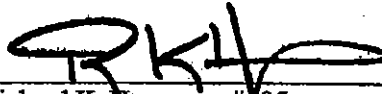
16. For an award of Plaintiff's costs of this action, interest on the award and other charges to the maximum extent permissible; and

17. For such other further relief as the Court deems just and proper under the circumstances.

**DEMAND FOR JURY TRIAL**

Plaintiff hereby demands a trial by jury.

Dated: June 16, 2006



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# **EXHIBIT 12**

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Briefs and Other Related Documents

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United States District Court, D. Delaware.

Arlin M. ADAMS, Chapter 11 Trustee of the Post-Confirmation Bankruptcy Estates of Coram Healthcare Corporation, a Delaware Corporation, and of Coram, Inc., a Delaware corporation, Plaintiff,  
 v.

Daniel D. CROWLEY; Donald J. Amaral; William J. Casey; L. Peter Smith; and Sandra L. Smoley,  
 Defendants.

No. Civ. 04-1565-SLR.

May 25, 2005.

Rolin P. Bissell, Glenn Christopher Mandalas, Young, Conaway, Stargatt & Taylor, Wilmington, DE, for Plaintiff.

Jeffrey C. Wisler, Connolly, Bove, Lodge & Hutz, Peter J. Walsh, Jr., Potter Anderson & Corroon, LLP, Wilmington, DE, for Defendants.

## MEMORANDUM ORDER

ROBINSON, J.

\*1 At Wilmington this 25<sup>th</sup> day of May, 2005, having reviewed defendants' motions to transfer, and the papers submitted in connection therewith;

IT IS ORDERED that said motions (D.I.3, 15) are denied, for the reasons that follow:

1. Background facts. On August 8, 2000, Coram Healthcare Corporation and Coram, Inc. (hereafter "Coram") filed a Chapter 11 petition in the United States Bankruptcy Court for the District of Delaware, together with a proposed plan of reorganization. In December 2000, the bankruptcy court denied confirmation of the plan, based in part on the fact that defendant Crowley had a conflict of interest by reason of his position as CEO of Coram and his contractual relationship with one of Coram's three major lenders.<sup>FN1</sup> After denying confirmation of Coram's second proposed plan of reorganization,<sup>FN2</sup> the bankruptcy court entered an order appointing plaintiff Chapter 11 Trustee of Coram. On October 27, 2004, the bankruptcy court confirmed the Trustee's plan of reorganization, which plan was implemented on December 1, 2004. Coram is now a

private company owned by its former lenders. Under the Trustee's plan as approved by the bankruptcy court, the right to pursue causes of action against Coram's former directors was reserved to the Trustee for the benefit of Coram's former unsecured trade creditors and its former common shareholders.

FN1. It is alleged that between November 30, 1999, when Crowley became CEO, and July 31, 2000, Crowley caused Coram to pay certain lenders approximately \$60 million.

FN2. The bankruptcy court found in this regard that the Outside Directors, the remaining defendants herein, had done nothing in response to the court's order denying confirmation of the first plan of reorganization.

2. Standard of review. Under 28 U.S.C. § 1404(a), a district court may transfer any civil action to any other district where the action might have been brought for the convenience of parties and witnesses and in the interests of justice. Congress intended through § 1404 to place discretion in the district court to adjudicate motions to transfer according to an individualized, case-by-case consideration of convenience and the interests of justice. Stewart Org., Inc. v. Ricoh Corp., 487 U.S. 22, 29, 108 S.Ct. 2239, 101 L.Ed.2d 22 (1988); Affymetrix, Inc. v. Synteni, Inc., 28 F.Supp.2d 192, 208 (D.Del.1998).

3. The burden of establishing the need to transfer rests with the movant "to establish that the balance of convenience of the parties and witnesses strongly favors the defendants." Bergman v. Brainin, 512 F.Supp. 972, 973 (D.Del.1981) (citing Shutte v. Armco Steel Corp., 431 F.2d 22, 25 (3d Cir.1970). "Unless the balance is strongly in favor of a transfer, the plaintiff's choice of forum should prevail". ADE Corp. v. KLA-Tencor Corp., 138 F.Supp.2d 565, 567 (D.Del.2001); Shutte, 431 F.2d at 25.

4. The deference afforded plaintiff's choice of forum will apply as long as a plaintiff has selected the forum for some legitimate reason. C.R. Bard, Inc. v. Guidant Corp., 997 F.Supp. 556, 562 (D.Del.1998); Cypress Semiconductor Corp. v. Integrated Circuit Systems, Inc., 2001 WL 1617186 (D.Del. Nov.28,

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2001); *Continental Cas. Co. v. American Home Assurance Co.*, 61 F.Supp.2d 128, 131 (D.Del.1999). Although transfer of an action is usually considered as less inconvenient to a plaintiff if the plaintiff has not chosen its "home turf" or a forum where the alleged wrongful activity occurred, the plaintiff's choice of forum is still of paramount consideration, and the burden remains at all times on the defendants to show that the balance of convenience and the interests of justice weigh strongly in favor of transfer." *In re M.L.-Lee Acquisition Fund II, L.P.*, 816 F.Supp. 973, 976 (D.Del.1993).

\*2 5. The Third Circuit Court of Appeals has indicated that the analysis for transfer is very broad. *Jumara v. State Farm Ins. Co.*, 55 F.3d 873, 879 (3d Cir.1995). Although emphasizing that "there is no definitive formula or list of factors to consider," *id.*, the Court has identified potential factors it characterized as either private or public interests. The private interests include: "(1) plaintiff's forum preference as manifested in the original choice; (2) defendant's preference; (3) whether the claim arose elsewhere; (4) the convenience of the parties as indicated by their relative physical and financial condition; (5) the convenience of the witnesses but only to the extent that the witnesses may actually be unavailable for trial in one of the fora; and (6) location of books and records (similarly limited to the extent that the files could not be produced in the alternative forum)." *Id.* (citations omitted).

6. The public interests include: "(1) the enforceability of the judgment; (2) practical considerations that could make the trial easy, expeditious or inexpensive; (3) the relative administrative difficulty in the two fora resulting from court congestion; (4) the local interest in deciding local controversies at home; (5) the public policies of the fora; and (6) the familiarity of the trial judge with the applicable state law in diversity cases." *Id.* (citations omitted).

7. Analysis. Defendants move to transfer this case to the District of Colorado. In support of their motions, defendants recite several facts. First, none of the defendants live in or near Delaware.<sup>FN3</sup> Coram, now a private company, is incorporated in Delaware with its principal place of business in Denver, Colorado. Coram's employees and business records are located as well in Denver, Colorado. Plaintiff, Coram's Chapter 11 Trustee, resides in Philadelphia. According to defendants, these facts compel the transfer of this case to Colorado because no one involved in the litigation has a direct connection to the District of Delaware.

FN3. Three of the defendants, Mr. Casey, Mr. Crowley and Ms. Smoley, live in California, while Mr. Amaral lives in Nevada and Mr. Smith lives in Illinois.

8. I respectfully disagree. Coram (through its directors) chose Delaware as its place of incorporation and chose to file for bankruptcy protection in Delaware's bankruptcy court. The bankruptcy court appointed plaintiff the Chapter 11 Trustee and gave him the authority to commence the instant proceedings against the company's former fiduciaries. These facts demonstrate a substantial connection to Delaware. Moreover, given the fact that most discovery will be taken in the same fashion regardless of where trial may proceed,<sup>FN4</sup> the convenience of the defendants is not a compelling factor. For these reasons, and consistent with my practice, I decline to transfer this case on the record presented.<sup>FN5</sup>

FN4. Depositions generally do not last more than 7 hours; the parties should be able to work out convenient places for their location. Document production may well be in electronic format.

FN5. Employees of parties must make themselves available for purposes of depositions and trial. It is not apparent to me whether the employees of Coram (in its present corporate form) are subject to this court's jurisdiction. However, neither is it apparent at this stage of the proceedings whether they will voluntarily appear as witnesses, under the circumstances at bar. Therefore, I will reconsider my decision not to transfer only if specifically identified, critical witnesses decline to testify in Delaware and cannot be compelled to do so.

D.Del.,2005.

Adams v. Crowley

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Briefs and Other Related Documents ([Back to top](#))

- [2006 WL 1199915](#) (Trial Motion, Memorandum and Affidavit) Plaintiff's Brief in Support of Motion to Vacate Order and Lift Stay (Mar. 9, 2006) Original Image of this Document (PDF)

- [1:04cv01565](#) (Docket) (Dec. 29, 2004)

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Briefs and Other Related Documents

Only the Westlaw citation is currently available.

United States District Court, D. Delaware.  
 ARROW COMMUNICATION LABORATORIES,  
 INC., Plaintiff,  
 v.  
 JOHN MEZZALINGUA ASSOCIATES, INC.,  
 Defendant.  
 JOHN MEZZALINGUA ASSOCIATES, INC.,  
 Counterclaim Plaintiff,  
 v.  
 ARROW COMMUNICATION LABORATORIES,  
 INC., and Tresness Irrevocable Patent Trust,  
 Counterclaim Defendants.  
 No. Civ. 05-357-SLR.

Oct. 26, 2005.

Richard D. Kirk, of the Bayard Firm, Wilmington, Delaware, for Arrow Communication Laboratories, Inc., and Tresness Irrevocable Patent Trust. R. Terrance Rader, Charles W. Bradley, Glenn E. Forbis, Linda D. Kennedy, and Shelly L. Hokenstad, of Rader, Fishman & Grauer PLLC, Bloomfield Hills, Michigan, and Lawrence P. Trapani, of Manlius, New York, of Counsel.

Jeffrey B. Bove, and Kevin M. Baird, of Connolly Bove Lodge & Hutz LLP, Wilmington, Delaware, for John Mezzalingua Associates, Inc. James R. Muldoon, and John A. Wasleff, of Wall, Marjama & Bilinski, LLP, Syracuse, New York, of Counsel.

## MEMORANDUM OPINION

ROBINSON, Chief J.

## I. INTRODUCTION

\*1 On June 3, 2005, plaintiff Arrow Communication Laboratories, Inc. ("plaintiff") filed a complaint in the United States District Court for the District of Delaware alleging patent infringement by defendant John Mezzalingua Associates, Inc. ("defendant"). (D.I.1) Plaintiff claims to be the lawful owner of all right, title and interest in U.S. Patent No. 5,745,838 ("the '838 patent"). (*Id.*) Plaintiff alleges that defendant is infringing the '838 patent by manufacturing, selling and offering for sale in the United States, and by importing into the United

States, electronic filters covered by one or more of the claims of the '838 patent. (*Id.*) Plaintiff further alleges that defendant is actively inducing others to infringe the '838 patent. (*Id.*)

On June 6, 2005, defendant filed an action for declaratory judgment of patent non-infringement and invalidity in the United States District Court for the Northern District of New York. (D.I.9, ex. A) On August 11, 2005, plaintiff's infringement suit was referred to the Magistrate Judge of the District of Delaware for the purpose of exploring alternative dispute resolution. (D.I.29) Trial is scheduled for November 2006. (*Id.*)

## II. BACKGROUND

Plaintiff is a corporation organized under the laws of the State of New York with its principal place of business in Syracuse, New York. Defendant is a corporation organized under the laws of the State of Delaware with its principal place of business in East Syracuse, New York.

## III. STANDARD OF REVIEW

Defendant moves the court to transfer this matter, pursuant to 28 U.S.C. § 1404(a), to the United States District Court for the Northern District of New York. (D.I.6) Section 1404(a) provides: "For the convenience of the parties and witnesses, in the interests of justice, a district court may transfer any civil action to any other district or division where it might have been brought." 28 U.S.C. § 1404(a) (2003). A plaintiff's choice of forum is to be accorded substantial weight and courts should only transfer venue if the defendant is truly regional in character. *See Bergman v. Brainin*, 512 F.Supp. 972, 973 (D.Del.1981) (citing *Shutte v. Armco Steel Corp.*, 431 F.2d 22, 25 (3d Cir.1970)). A defendant has the burden of establishing that "the balance of convenience of the parties and witnesses strongly favors" transfer. *Id.* Accordingly, "defendants brought into suit in Delaware must prove that litigating in Delaware would pose a 'unique or unusual burden' on their operations" for a Delaware court to transfer venue. *See Wesley-Jessen Corp. v. Pilkington Visioncare, Inc.*, 157 F.R.D. 215 (D.Del.1993). A motion to transfer venue may also

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be granted if there is a related case which has been first filed or otherwise is the more appropriate venue in which to litigate the issues between the parties. *See American Bio Medica Corp. v. Peninsula Drug Analysis Co., Inc.*, 1999 WL 615175, \*5 (D.Del.1999).

\*2 In reviewing a motion to transfer venue, courts have not limited their consideration to the three factors enumerated in § 1404(a) (i.e., convenience of parties, convenience of witnesses, and interests of justice). The Third Circuit, in fact, has indicated that the analysis for transfer is very broad and has urged consideration of "all relevant factors to determine whether on balance the litigation would more conveniently proceed and the interests of justice be better served by transfer to a different forum." *Jumara v. State Farm Ins. Co.*, 55 F.3d 873, 879 (3d Cir.1995) (internal quotations and citation omitted). These factors entail six private and five public interests. Private interests include: (1) the plaintiff's forum preference as manifested by the plaintiff's original forum choice; (2) the defendant's forum preference; (3) whether the claim arose elsewhere; (4) the convenience of the parties as indicated by their relative physical and financial condition; (5) the convenience of the witnesses to the extent that the witnesses may actually be unavailable for trial in one of the fora; and (6) the location of the books and records to the extent that the files could not be produced in the alternative forum. *Id.* Public interests include: (1) the enforceability of the judgment; (2) practical considerations that could make the trial easy, expeditious, or inexpensive; (3) the relative administrative difficulty in the two fora resulting from court congestion; (4) the local interest in deciding local controversies at home; and (5) the familiarity of the trial judge with the applicable state law in diversity cases. *Id.*

In considering the private interest factors under *Jumara*, the court, consistent with Third Circuit precedent, adheres to the notion that transfer is not to be liberally granted and plaintiff's choice of forum is a paramount consideration. The deference afforded plaintiff's choice of forum will apply as long as a plaintiff has selected the forum for some legitimate reason. *C.R. Bard, Inc. v. Guidant Corp.*, 997 F.Supp. 556, 562 (D.Del.1998); *Cypress Semiconductor Corp. v. Integrated Circuit Systems, Inc.*, 2001 WL 1617186 (D.Del. Nov. 28, 2001); *Cont'l Cas. Co. v. Am. Home Assurance Co.*, 61 F.Supp.2d 128, 131 (D.Del.1999). Although transfer of an action is usually regarded as less inconvenient to a plaintiff if the plaintiff has not chosen its "home turf" or a forum

where the alleged wrongful activity or injury occurred, the "plaintiff's choice of forum is still of paramount consideration, and the burden remains at all times on the defendants to show that the balance of convenience and the interests of justice weigh strongly in favor of transfer." *In re ML-Lee Acquisition Fund II, L.P.*, 816 F.Supp. 973, 976 (D.Del.1993).

#### IV. DISCUSSION

As an initial matter, the court notes that venue is proper in Delaware as defendant is incorporated under the laws of the State of Delaware. Nevertheless, the District of Delaware is not plaintiff's "home turf," since it maintains its principal place of business in New York. In this sense, it appears to be more convenient to both the plaintiff and defendant to try the instant litigation in the Northern District of New York. Indeed, this court previously recognized that,

\*3 [w]hen the plaintiff has chosen to bring suit in a district that is not plaintiff's "home turf" and that has no connection to any acts giving rise to the lawsuit, convenience to the plaintiff is not as great as it would be were plaintiff litigating at or near plaintiff's principal place of business or at the site of activities at issue in the lawsuit.

*Burstein v. Applied Extrusion Techs. Inc.*, 829 F.Supp. 106, 110 (D.Del.1992) (citing *Sports Eye, Inc. v. Daily Racing Form, Inc.*, 565 F.Supp. 634, 637 (D.Del.1983) (internal citations omitted)). Moreover, the locus of the alleged infringement occurred in Syracuse, New York. If defendant has infringed the '838 patent, such infringement was done primarily in Syracuse, where the accused products were developed, manufactured and sold. Based on the evidence offered, the majority of the witnesses with discoverable information also are located in and around Syracuse, New York. In addition, most of defendant's documents relating to the production, promotion, marketing and sales of the accused product are maintained in central New York. On this basis, the court concludes that the private factors under *Jumara* weigh in favor of transferring the case at bar to the United States District Court for the Northern District of New York.

One of the public interest factors under *Jumara* involves the administrative considerations of the courts. More than fifty years ago, the Third Circuit Court of Appeals adopted the "first-filed rule" where "in all cases of federal concurrent jurisdiction the



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court which first had possession of the subject must decide it." Crosley Corp. v. Hazeltine Corp., 122 F.2d 925, 929 (3d Cir.1941) (quoting Smith v. M'Iver, 22 U.S. (9 Wheat.) 532, 6 L.Ed. 152 (1824)). Consequently, the second-filed action is usually stayed or transferred to the court where the first-filed action is pending. Peregrine Corp. v. Peregrine Indus., Inc., 769 F.Supp. 169, 171 (E.D.Pa.1991); Dippold-Harmon Enterprises, Inc. v. Lowe's Companies, Inc., 2001 U.S. Dist. LEXIS 18547, Civil Action No. 01-532-GMS, 2001 WL 1414868 (D.Del.2001). The rule "encourages sound judicial administration and promotes comity among federal courts of equal rank." E.E.O.C. v. University of Pennsylvania, 850 F.2d 969, 971 (3d Cir.1988). The decision to transfer or stay the second action is within the discretion of the trial court. Id. at 972, 977. Invocation of the rule will usually be the norm, not the exception. Courts presented with exceptional circumstances may exercise their discretion to depart from the first-filed rule. Id. at 979. In this case, it is undisputed that the present patent infringement suit in the District of Delaware was first filed and involves the same patent and the same issues as the declaratory judgment action filed thereafter by defendant in the Northern District of New York. Therefore, the burden is on defendant to present some exceptional circumstances why the court should depart from the first-filed rule.

\*4 In support of its argument supporting transfer, defendant states that all of its relevant witnesses reside in New York, all the documents and records related to the accused product are in New York, and the subject matter of the lawsuit has significant local interest in New York. (D.I. 7 at 1-3) In contrast, evidence suggests that the District of Delaware has no connection to the subject matter of plaintiff's lawsuit, except that defendant is incorporated there. Defendant contends that pursuing the lawsuit in the District of Delaware will generate "significant expenses and other burdens" to the parties. (Id. at 3-4) Given this evidence and noting the regional character of the parties, with the primary business operations of each party located in the Northern District of New York, there are exceptional circumstances present which require the court to depart from the first-filed rule.

In considering the other public interest factors under *Jumara*, the court notes that the parties have taken significant steps to advance the instant litigation in the District of Delaware. The parties have exchanged initial disclosures, are set to explore settlement with the magistrate judge, and have arranged a schedule

for litigation, with trial set to occur in about one year. These factors weigh in favor of maintaining the litigation in the District of Delaware. However, factors are also present which weigh in favor of transferring the case to the Northern District of New York. First, defendant's declaratory judgment action, which involves the same subject matter as this case, is currently pending in the United States District Court for the Northern District of New York.<sup>FN1</sup> In addition, both parties are regional in character and operate their businesses out of central New York, suggesting that the Northern District of New York is the most appropriate venue for the parties to litigate. Although a suit in this matter was first filed in Delaware, the public interest factors weighing in favor of keeping the litigation in the District of Delaware are not compelling. The court, therefore, concludes that the public interest factors under *Jumara* favor transferring venue to the Northern District of New York.

<sup>FN1</sup> By stipulation of the parties, that case has been stayed pending this court's decision on defendant's motion to transfer venue. (N.D. N.Y., Case No. 05-CV-703 (NAM/DEP), D.I. 6) The court has no reason to believe that, once the stay is lifted, the declaratory judgment action in the Northern District of New York will move forward with any less swiftness than that with which the instant case has progressed in the District of Delaware. The familiarity with the parties and subject matter possessed by the Northern District of New York will certainly promote expeditiousness in handling the case.

## V. CONCLUSION

On balance, the court finds that the public interest factors and private interest factors weigh strongly in favor of transferring venue in this case. The court, as a result, concludes that defendant has sufficiently proven that litigating in the District of Delaware would pose a unique burden which merits transfer of venue. For the reasons stated, defendant's motion to transfer is granted. An order consistent with this memorandum opinion shall issue.

## ORDER

At Wilmington this 26th day of October, 2005, consistent with the memorandum opinion issued this

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same date;

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IT IS ORDERED that:

1. Defendant's motion to transfer (D.I.6) is granted.
2. The above-captioned action shall be transferred to the United States District Court for the Northern District of New York.

D.Del.,2005.  
Arrow Communication Laboratories, Inc. v. John Mezzalingua Associates, Inc.  
Slip Copy, 2005 WL 2786691 (D.Del.)

Briefs and Other Related Documents ([Back to top](#))

- [2005 WL 3667196](#) (Trial Pleading) Plaintiff Arrow Communication Laboratories, Inc.'s and Counterclaim Defendant Tresness Irrevocable Patent Trust's (Oct. 25, 2005) Original Image of this Document (PDF)
- [2005 WL 3667190](#) (Trial Pleading) Answer to First Amended Complaint of Arcom and Counterclaims (Oct. 18, 2005) Original Image of this Document (PDF)
- [2005 WL 3667193](#) (Trial Pleading) Reply to the First Amended Counterclaims of Tresness Irrevocable Patent Trust (Oct. 18, 2005) Original Image of this Document (PDF)
- [2005 WL 2868155](#) (Trial Motion, Memorandum and Affidavit) Supplemental Brief in Further Support of Defendant's Motion to Transfer Venue Pursuant to 28 U.S.C. | 1404(a) (Oct. 5, 2005) Original Image of this Document (PDF)
- [2005 WL 2868149](#) (Trial Pleading) First Amended Complaint (Oct. 3, 2005) Original Image of this Document (PDF)
- [2005 WL 2868151](#) (Trial Pleading) Tresness Irrevocable Patent Trust's First Amended Counterclaim (Oct. 3, 2005) Original Image of this Document (PDF)
- [2005 WL 2868153](#) (Trial Pleading) Second Amended Answer and Counterclaims (Oct. 3, 2005) Original Image of this Document (PDF)
- [2005 WL 1529914](#) (Trial Pleading) Complaint (Jun. 3, 2005) Original Image of this Document (PDF)
- [1:05cv00357](#) (Docket) (Jun. 03, 2005)
- [2005 WL 3667183](#) (Trial Motion, Memorandum and Affidavit) Memorandum of Law in Support of Defendant's Motion to Dismiss State Law Claims under Fed. R. Civ. P. 12(b)(6) (2005) Original Image of this Document (PDF)



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Not Reported in F.Supp.2d, 2000 WL 1728354 (D.Del.)  
(Cite as: Not Reported in F.Supp.2d)

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Only the Westlaw citation is currently available.  
United States District Court, D. Delaware.  
ASTEN INC., Plaintiff,  
v.  
WEAVEXX CORPORATION, Defendant.  
No. 99-593 GMS.

Feb. 11, 2000.

George H. Seitz, III, Seitz, Van Ogtrop & Green,  
P.A., Wilmington, for Asten Inc., plaintiffs.  
Thomas C. Grimm, Morris, Nichols, Arsht &  
Tunnell, Wilmington, for Weavexx Corporation,  
defendants.

#### ORDER

SLEET, J.

#### I. INTRODUCTION

\*1 On September 3, 1999, Plaintiff Asten, Inc. ("Asten") filed a complaint alleging patent infringement by Defendant Weavexx Corp. ("Weavexx"). The complaint was not served until September 24, 1999. In the interim, on September 10, 1999, Weavexx filed and served a "mirror image" action in the United States District Court for the Eastern District of North Carolina. In that action, Weavexx seeks a declaration that Asten's patent is invalid and/or not infringed by Weavexx.

Before the court is Weavexx's motion to transfer this case to the Eastern District of North Carolina, or in the alternative, to stay proceedings here pending resolution of the North Carolina declaratory judgment action. Weavexx argues that the case should be transferred pursuant to the "first filed" rule, or, alternatively, pursuant to 28 U.S.C. § 1404.<sup>FN1</sup> For the reasons that follow, the court will deny Weavexx's motion.

<sup>FN1</sup> Weavexx's motion requests a transfer pursuant to § 1404 or a stay pursuant to the first-filed rule. See Mot. to Transfer or Stay, at 1. In its briefing, however, Weavexx appears to request only a transfer, pursuant to either § 1404 or the first-filed rule. See Opening Br. at 2, 5, 18. As discussed below,

the court has concluded that the first-filed rule does not operate in Weavexx's favor. The rule, therefore, provides no more basis for a stay than it does for a transfer.

#### II. BACKGROUND

Asten and Weavexx both design and manufacture certain fabrics used on papermaking machines. Both companies are incorporated in Delaware, but neither company maintains a physical presence in this state. Asten is headquartered in Charleston, South Carolina and maintains its primary manufacturing facility in Appleton, Wisconsin. Weavexx is headquartered and maintains a major manufacturing facility in Wake Forest, North Carolina. It also has manufacturing facilities in several other southern states and in Canada,<sup>FN2</sup> and sells its products in the United States, Canada, and Mexico.

<sup>FN2</sup> In addition to its Wake Forest location, Weavexx maintains U.S. manufacturing facilities in Florida, Tennessee, Mississippi and Virginia, and Canadian facilities in Ontario (administrative offices), Nova Scotia and Quebec. See Opp'n Br. at Ex. B.

Asten is the assignee of U.S. Patent No. 5,025,839 ("the '839 patent"), entitled "Two-Ply Papermakers Forming Fabric with Zig-Zagging MD Yarns." Asten contends that Weavexx's "Design 2895" forming fabrics infringe the '839 patent. Weavexx states that it "principally designed" these fabrics at its Wake Forest plant, and that it markets and sells these products out of that facility. The products are manufactured, however, by a "sister-company" of Weavexx that is located in Brazil.

The inventor of the '839 patent, Walter Wright, is employed by Asten at its Appleton, Wisconsin facility. Asten manufactures its "Style 866" forming fabric, based on the '839 patent, at the Appleton plant. The documents relating to the design and development of the '839 patent are also located in Appleton.

#### III. DISCUSSION

As previously noted, Weavexx seeks to transfer this

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action pursuant to the “first-filed” rule, or, alternatively, pursuant to 28 U.S.C. § 1404(a).

#### A. The First-Filed Rule

The first-filed rule is a judicially created doctrine that is designed to avoid concurrent litigation of the same issues, between the same parties, in more than one federal court. See EEOC v. University of Pennsylvania, 850 F.2d 969, 971-72 (3d Cir.1988). As its name implies, the rule generally provides that a later filed action should be stayed pending resolution of an earlier filed action, or transferred to the court in which the earlier filed action is pending. See Peregrine Corp. v. Peregrine Indus., Inc., 769 F.Supp. 169 (E.D.Pa.1991).

\*2 Since Asten filed its complaint in this court seven days before Weavexx filed its federal declaratory judgment action in North Carolina, the rule would not seem to provide a basis for transfer. Weavexx, however, claims that in the Third Circuit, the “first-filed” rule would more accurately be described as the “first-served” rule. It contends that under Third Circuit case law, “the ‘first-filed’ of two parallel actions is the one in which the district court first obtains jurisdiction of the parties and issues.” Opening Br. at 6. Weavexx argues that in Delaware, personal jurisdiction over a defendant does not arise until a complaint is served. Consequently, Weavexx contends that the earlier-served North Carolina action should have priority over this earlier-filed Delaware action. The court disagrees.

Weavexx correctly notes that the Third Circuit Court of Appeals has at times articulated the rule as giving priority to the court “first obtaining jurisdiction of the parties and issues.” See, e.g., Crosley Corp. v. Westinghouse Elec. & Mfg. Co., 130 F.2d 474, 475 (3d Cir.1942). But Weavexx places too much significance on this language. In applying the rule, the Third Circuit has never focused on the dates that complaints were served, or, more generally, the dates on which personal jurisdiction was established. In this court's view, the “parties and issues” language just quoted was merely intended to signify that the first-filed rule should only apply when the competing actions involve the same parties and issues. See University of Pennsylvania, 850 F.2d at 971-72 (noting that the rule gives a court the power to enjoin the “subsequent prosecution of proceedings involving the same parties and the same issues already before another district court” (emphasis added)).

Indeed, the rule is often articulated without language that might suggest a focus on personal jurisdiction. For example, the rule has been described as giving priority to “the court which first has possession of the subject.” University of Pennsylvania, 850 F.2d at 971 (emphasis added) (citing Crosley Corp. v. Hazeltine Corp., 122 F.2d 925, 929 (3d Cir.1941)). In first adopting the rule, the Third Circuit explained that the party who “first brings a controversy into a court of competent jurisdiction for adjudication should ... be free from the vexation of subsequent litigation over the same subject matter.” Crosley Corp. v. Hazeltine Corp., 122 F.2d 925, 930 (3d Cir.1941) (emphasis added). The Hazeltine court, therefore, concluded that the lower court had erred in refusing to enjoin later-filed patent infringement actions in the Southern District of Ohio, “when the jurisdiction of the district court of Delaware has already been invoked to determine the validity and infringement of all of these patents.” *Id.* at 930 (emphasis added). These articulations suggest that the inquiry should focus on the date on which the jurisdiction of the court is invoked-i.e., through the filing of a complaint-rather than the date on which personal jurisdiction over the parties is perfected.

\*3 The only case from this circuit to squarely address the issue concluded that the first-filed rule gives priority to an earlier filed complaint even if a later filed complaint is first served. See Peregrine Corp. v. Peregrine Indus., Inc., 769 F.Supp. 169, 171-72 (E.D.Pa.1991); but see Osteotech, Inc. v. Gensci Regeneration Sciences, Inc., 6 F.Supp.2d 349, 357 n. 4 (D.N.J.1998) (stating, *in dicta*, that a “persuasive argument can be made” that a later filed but first served complaint takes priority in this circuit).<sup>FN3</sup> This court agrees with the conclusion reached in Peregrine, which also appears to be the majority view in other circuits.<sup>FN4</sup>

<sup>FN3</sup> Though not addressing the “first-filed” vs. “first-served” issue, the court in Jefferson Ward Stores, Inc. v. Doody Co., 560 F.Supp. 35 (E.D.Pa.1983), also placed great emphasis on the “first obtaining jurisdiction of the parties and the issues” language quoted above. See *id.* at 36-37. That court permitted a later filed Pennsylvania action to proceed because personal jurisdiction was being contested in an earlier filed Ohio action. Because the district court in Ohio had not yet ruled on a motion to dismiss for lack of personal jurisdiction, the district court in

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Pennsylvania concluded that the Ohio court had not yet "obtained jurisdiction of the parties." *See id.* The Pennsylvania court did, however, note that it would reconsider the question of transfer if the Ohio court were to rule that it did have jurisdiction over the parties. *Id.*

Despite its focus on personal jurisdiction, however, *Jefferson Ward* is not helpful to Weavexx's position. In Weavexx's declaratory judgment action in North Carolina, Asten moved for dismissal based on, *inter alia*, lack of personal jurisdiction. As that motion is still outstanding, it might be said that the district court in North Carolina has not yet "obtained jurisdiction" over the parties. Because personal jurisdiction is not contested in the instant action, transfer might be inappropriate even if the court were to construe the rule as focusing on the time at which personal jurisdiction is established.

FN4. *See, e.g., Pacesetter Sys., Inc. v. Medtronic, Inc.*, 678 F.2d 93, 96 n. 3 (9th Cir.1982); *Hospah Coal Co. v. Chaco Energy Co.*, 673 F.2d 1161, 1163 (10th Cir.1982); *Barber-Greene Co. v. Blaw-Knox Co.*, 239 F.2d 774, 778 (6th Cir.1957); *Med-Tec Iowa, Inc. v. Nomos Corp.*, 1999 WL 1084253, at \*6 (N.D.Iowa 1999); *Fat Possum Records Ltd. v. Capricorn Records, Inc.*, 909 F.Supp. 442, 446 (N.D.Miss.1995); *but see Northwest Airlines, Inc. v. Astraeg Aviation Serv., Inc.*, 930 F.Supp. 1317, 1327 n. 9 (suggesting that first-served action may take priority).

In the present case, this conclusion is fully consistent with the concerns that gave rise to the rule. In *University of Pennsylvania*, the court noted that the rule "encourages sound judicial administration and promotes comity among federal courts of equal rank." 850 F.2d at 971. In Weavexx's declaratory judgment action in North Carolina, the district court recently granted Asten's motion to stay proceedings pending this court's consideration of the instant motion. In so doing, the court stated: "Moreover, the Delaware complaint was filed, if not served, first. This Court sees no reason why the Delaware Court should not be allowed to determine whether to retain jurisdiction before the instant action is allowed to proceed." In light of that ruling, allowing this case to proceed in Delaware would not result in duplicative litigation, and would not undermine comity between

federal courts of equal rank.

Finally, it should be noted that in response to the court's inquiry, counsel for Weavexx conceded that at the time Weavexx filed its declaratory judgment action in North Carolina, it was aware that Asten had already filed its complaint here in Delaware. Weavexx offers no explanation as to what function its declaratory judgment action could serve that a counterclaim in the instant action could not. Under these circumstances, the court concludes that the first-filed rule does not provide a basis for staying these proceedings or transferring this case to the Eastern District of North Carolina.

#### B. Transfer Pursuant to 28 U.S.C. § 1404

The first-filed rule does not, of course, preclude Weavexx's motion for transfer pursuant to 28 U.S.C. § 1404. That section provides as follows:

For the convenience of parties and witnesses, in the interests of justice, a district court may transfer any civil action to any other district or division where it may have been brought.

Although the decision to transfer a case is subject to the court's discretion, a plaintiff's choice of forum is a "paramount" consideration that is not to be "lightly disturbed." *Schutte v. Armco Steel Corp.*, 431 F.2d 22, 25 (3d Cir.1970); *see also Junara v. State Farm Ins. Co.*, 55 F.3d 873, 879-80 (3d Cir.1995). As such, Weavexx has a heavy burden to carry. The court should not grant a transfer unless the "balance of convenience" weighs strongly in favor of transfer. *See Schutte*, 431 F.2d at 25.<sup>FN5</sup>

FN5. Weavexx attempts to incorporate its position regarding the first-filed rule into its § 1404 analysis, arguing that Asten has the burden of establishing that the balance of convenience strongly favors Delaware. Opening Br. at 9. Since the court has already rejected Weavexx's position that the North Carolina action was "first-filed," it need not decide whether a contrary conclusion would have reversed the burden of persuasion in a § 1404 analysis, as Weavexx contends. The court does note, however, that the case Weavexx cites for that proposition, *Ballard Medical Products v. Concord Lab., Inc.*, 700 F.Supp. 796 (D.Del.1988), does not support Weavexx's view. Rather, the earlier filed action in *Ballard* was simply considered as a



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factor favoring transfer-it did not reverse the burden of persuasion. *See id.* at 800-01.

\*4 In *Jumara*, the Third Circuit Court of Appeals identified a nonexclusive list of factors that have been used to guide courts in the exercise of their discretion in ruling on requests for transfer. *See Jumara*, 55 F.3d at 879-80; *see also Affymetrix, Inc. v. Synteni, Inc.*, 28 F.Supp.2d 192, 196-97 (D.Del.1998). The factors most relevant to this case are discussed below.<sup>FN6</sup>

FN6. As a threshold matter, this action could have been brought in the Eastern District of North Carolina. *See* 28 U.S.C. § § 1391(b), 1400(b). The court can, therefore, proceed to weighing the factors for and against transfer.

#### 1. The Convenience of the Parties

Litigating this case in North Carolina would be more convenient for Weavexx. Weavexx is headquartered in Wake Forest, which is within the Eastern District of North Carolina. Weavexx has identified six employees likely to testify at trial, each of whom resides within the Eastern District. The accused product was designed in Wake Forest, and Weavexx contends that the vast majority of its documents and records relating to the accused product are maintained at its Wake Forest headquarters.

Weavexx also claims that litigating this case in North Carolina would be more convenient for Asten. The entirety of Weavexx's "proof" in this regard is the fact that Asten is headquartered in Charleston, South Carolina. Asten does not vigorously contend, however, that Delaware is more convenient. Although Asten notes that its relevant documents and at least one of its testifying employees are located in Appleton, Wisconsin, it has done little to establish that these facts make Delaware any less inconvenient than North Carolina.

The court, therefore, concludes that North Carolina would be more convenient than Delaware for Weavexx, and no more inconvenient than Delaware for Asten. While this factor therefore favors transfer, it does so only slightly. Weavexx concedes that it is financially able to shoulder the expense of litigating this case in Delaware. Further, Weavexx has not established that its business would be disrupted if the employees that are expected to testify at trial must do so in Delaware. Weavexx maintains manufacturing facilities in several southern states and in Canada. It

is likely that the six employees Weavexx identifies-upper level management including the company's president and three vice-presidents-are sometimes called upon to travel for company business. Finally, Weavexx has managed to survive two previous lawsuits filed in Delaware *by Weavexx* against Asten.

#### 2. The Convenience and Availability of the Witnesses

The convenience of witnesses is often an important factor in a transfer inquiry. *See* 15 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & EDWARD H. COOPER, FEDERAL PRACTICE AND PROCEDURE: JURISDICTION AND RELATED MATTERS § 3851, at 415 (2d ed.1986) [hereinafter WRIGHT & MILLER] (describing this factor as "[p]robably the most important factor, and the factor most frequently mentioned, in passing on a motion to transfer"). The convenience of witnesses is only considered, however, "to the extent that the witnesses may actually be unavailable for trial in one of the fora." *Jumara*, 55 F.3d at 879 (citing WRIGHT & MILLER § 3851, at 420-22). Thus, for example, the convenience of witnesses that are employees of a party carries no weight because the parties are obligated to procure their attendance at trial. *See Affymetrix*, 28 F.Supp.2d at 203.

\*5 Weavexx claims that North Carolina is a more convenient forum than Delaware for most of both parties' witnesses. But Weavexx has failed to sufficiently identify any witnesses that "may actually be unavailable for trial" in Delaware. Indeed, the six "primary anticipated fact witnesses" that Weavexx identifies are all upper level Weavexx employees. As such, Weavexx should be able to assure their attendance at trial.<sup>FN7</sup>

FN7. Weavexx appears to contend that one of its employee witnesses-the inventor of the accused product-should be treated as a non-party witness because he is scheduled to retire from Weavexx before the anticipated trial date. Opening Br. at 11. Weavexx, however, provides no information-by affidavit or otherwise-to suggest that this witness may be unavailable for trial in Delaware (or, for that matter, that he plans to remain within the subpoena power of the Eastern District of North Carolina after his retirement). The court is, therefore, not persuaded that this employee's anticipated

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retirement should have a significant impact on the transfer inquiry.

Weavexx also claims that three of the four "major domestic manufacturers of papermaking fabric" are headquartered in either North or South Carolina. Therefore, it asserts that "it is clearly more likely that witnesses having knowledge regarding relevant prior art would be within the subpoena power of the North Carolina Court." Opening Br. at 11. While this may or may not be a reasonable assumption,<sup>FN8</sup> such unsupported speculation about unspecified witnesses does not carry much weight in a transfer analysis. *Affymetrix*, 28 F.Supp.2d at 205. Further, two of the three "major domestic manufacturers" headquartered in the Carolinas are Asten and Weavexx themselves. As already noted, the convenience of party witnesses generally receives no weight in a transfer analysis. *Id.* at 203.

<sup>FN8</sup>. For example, although Asten is headquartered in South Carolina, its employee that is apparently most knowledgeable about the prior art of the '839 patent is located at Asten's manufacturing facility in Appleton, Wisconsin.

As such, to the extent that the convenience and availability of witnesses weighs at all in favor of transfer, it does so only slightly.

### 3. Other Factors

Although Weavexx principally relies on the two factors discussed above, it recites several other factors that supposedly favor transfer. For example, Weavexx notes that since 1996, the average time from filing to trial for civil actions is 19.3 months in Delaware as compared to 16.5 months in North Carolina. But for the most recent period-the year ending June 30, 1999-Weavexx's statistics show that the average time to trial was one month longer in North Carolina than in Delaware. Virtually all of the other statistics provided by Weavexx (but not cited in its brief) suggest that court congestion is actually worse in the Eastern District of North Carolina than in the District of Delaware. Moreover, Magistrate Judge Thyne of this district served as a mediator in both of the prior Delaware actions between the parties. Judge Thyne will again be available in the present action. It appears, therefore, that administrative considerations and judicial economy actually weigh against transfer.<sup>FN9</sup>

<sup>FN9</sup>. As already noted, the district court in North Carolina has granted Asten's motion to stay proceedings in the declaratory judgment action pending this court's decision on Weavexx's motion to transfer. Therefore, there does not appear to be a risk of duplicative litigation if this motion is denied.

Next, Weavexx attempts to characterize this action as a "local controversy" that should be decided close to home. See *Jumara*, 55 F.3d at 879. The court fails to see how a patent infringement action involving two large companies that (1) are incorporated in Delaware; (2) are headquartered in different states; and (3) maintain manufacturing facilities in various states and Canada can be considered a "local" North Carolina controversy. Such characterization seems particularly inappropriate where, as here, the competing products at issue are manufactured in Wisconsin and Brazil.

\*6 The court finds that the other factors referred to by Weavexx, including those not discussed herein, do not weigh significantly, if at all, in favor of transfer.

### 4. Weighing of Factors

The court recognizes that the ties between this litigation and the state of Delaware are not substantial. Nevertheless, Asten's choice of this forum is a "paramount" consideration that is not to be "lightly disturbed." *Schutte v. Armco Steel Corp.*, 431 F.2d 22, 25 (3d Cir.1970). After weighing the factors discussed above, the court finds that Weavexx has failed to meet its heavy burden of establishing that the "balance of convenience" tips strongly in favor of transfer. As such, Weavexx has failed to establish that transfer is appropriate pursuant to 28 U.S.C. § 1404.

### IV. CONCLUSION

For the foregoing reasons, IT IS HEREBY ORDERED that:

1. Weavexx's motion to transfer this case to the United States District Court for the Eastern District of North Carolina is DENIED; and
2. Weavexx's alternative request to stay these



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proceedings pending resolution of Weavexx's  
declaratory judgment action in the Eastern District of  
North Carolina is DENIED.

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Briefs and Other Related Documents

Only the Westlaw citation is currently available.

United States District Court, D. Delaware.

BERING DIAGNOSTICS GMBH and Behring

Diagnostics, Inc., Plaintiffs,

v.

BIOSITE DIAGNOSTICS, INC., Defendant.

No. Civ.A. 97-501 MMS.

Jan. 6, 1998.

David J. Baldwin, and Joanne Ceballos, of Potter Anderson & Corroon, Wilmington, Delaware; of counsel, Herbert F. Schwartz, Kenneth B. Herman, Marta E. Gross, and Keith D. Agisim, of Fish & Neave, New York City, for plaintiffs.

Jeffrey Bove, of Connolly, Bove, Lodge & Hutz, Wilmington, Delaware; of counsel: Richard G. Greco, and Deborah A. Marrone, of Kaye, Scholer, Fierman, Hays & Handler, LLP, New York City, for defendants.

## OPINION

SCHWARTZ, Senior J.

## I. Introduction

\*1 Behring Diagnostics GmbH, Behring Diagnostics, Inc., and their parent company, Dade International, Inc. (collectively "Behring") brought this patent infringement action against Biosite Diagnostics, Inc. ("Biosite") for infringing Behring GmbH's U.S. Patent No. 4,336,241 (the "'241 Patent"). <sup>FN1</sup>

Biosite answered this complaint and counterclaimed seeking a declaratory judgment that the '241 Patent is invalid, unenforceable, and not infringed. The product accused of infringement is Biosite's Triage Panel For Drugs of Abuse ("Triage DOA"), which is an immunoassay device which is used for the detection of drugs of abuse in urine.

<sup>FN1</sup> Initially, on September 2, 1997, this action was commenced in the name of Behringwerke GmbH and Behring Diagnostics, Inc.; but this complaint was never served. On September 9, 1997, Behring Diagnostics GmbH and Behring

Diagnostics, Inc. refiled and served this present complaint.

In addition, Dade International, Inc., is in the process of changing its name to Dade Behring, Inc., effective January 1, 1998. At that time, Dade Behring, Inc. will be substituted as a party for Dade International, Inc.

Pending before the Court now is Biosite's motion to transfer this action to the United States District Court for the Southern District of California ("Southern District of California"). The Court has jurisdiction over this action under 28 U.S.C. § 1338(a). The motion to transfer will be denied.

## II. Factual Background

## A. The Parties

Biosite is a Delaware Corporation with its principal, and only, place of business in San Diego, California. Founded in 1988, Biosite develops, manufactures and markets diagnostics products to detect, *inter alia*, the presence in urine of commonly abused substances. Biosite has currently 210 employees and a market capitalization of \$100 million, with approximately \$28 million in gross sales. All of its management, scientists, and other employees (except for 20 sales people) are located at the San Diego facility. The accused product, the Triage DOA, was invented and developed in Biosite's San Diego facility and is manufactured at the same San Diego facility.

The Behring companies are a subsidiary of Hoescht AG and also develop, manufacture, and market diagnostics products to detect, *inter alia*, the presence in urine of commonly abused substances. Behring Diagnostics GmbH is a German corporation with its principal place of business in Marburg, Germany. Behring Diagnostics Inc. is at present a Delaware Corporation with its principal place of business in Westwood, Massachusetts. It is currently responsible for being the United States marketer of products manufactured by Behring GmbH. Behring Diagnostics GmbH became the current assignee of the '241 Patent when the Behring companies acquired Syva Company ("Syva") in 1995.

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Dade International, Inc., a Delaware corporation, is the owner of Behring Diagnostics GmbH and is also the owner, through a holding company, of Behring Diagnostics, Inc. On January 1, 1998, Dade International Inc. intends to change its name to Dade Behring Inc. It will be the same corporate entity it is now, with only a name change. The new entity will also be a Delaware corporation with its principal place of business in Deerfield, Illinois. Dade Behring will be owned in part by Hoescht AG. Dade International Inc., soon to be Dade Behring Inc., has a branch office in Glasgow, Delaware which employs approximately 1000 people and has 25 sales and service offices throughout Delaware.

### B. Subject Matter of this Lawsuit

\*2 Behring's '241 Patent, which was initially issued on December 28, 1982, to Henry K. Tom ("Tom") and Gerald L. Rowley ("Rowley"), is entitled "Concentrating Zone Method in Heterogeneous Immunoassays". The patent was subsequently assigned to Syva. The '241 Patent is directed to an assay device which can identify the presence of specific antigens in a sample solution such as urine or blood. Such devices are used for, among other things, the detection of drugs of abuse including cocaine and marijuana. Behring asserts Biosite's Triage DOA infringes upon the '241 Patent. The Triage DOA is a diagnostic device capable of detecting, in urine, a broad spectrum of commonly overdosed prescription and illicit drugs. Triage DOA is used by over 2,600 hospitals across the country, including hospitals in Delaware. Over 4.6 million Triage DOA devices have been sold worldwide since the product's introduction.

### III. Standards for Motion to Transfer

28 U.S.C. § 1404(a) provides "[f]or the convenience of parties and witnesses, in the interest of justice, a district court may transfer any civil action to any other district or division where it might have been brought." 28 U.S.C. § 1404(a) (1993). The parties concede that this action could have been brought in the Southern District of California.<sup>FN2</sup> See D.I. 28, at 11 n. 2.

<sup>FN2</sup> A civil action for patent infringement "may be brought in the judicial district where the defendant resides, or where the defendant has committed acts of

infringement and has a regular and established business." 28 U.S.C. § 1400(b). Since Biosite is not only headquartered in San Diego, and its only facility is located there, there is no question that the Southern District of California, in which San Diego lies, is an appropriate venue.

As the text of § 1404(a) indicates, the Court must examine (1) the convenience of the parties, (2) the convenience of the witnesses, and (3) the interests of justice, in determining whether transfer is proper. The Court of Appeals for the Third Circuit has emphasized this is a broad inquiry: a district court must examine "all relevant factors to determine whether on balance the litigation would more conveniently proceed and the interests of justice be better served by transfer to a different forum." *Jumara v. State Farm Ins. Co.*, 55 F.3d 873, 879 (3d Cir.1995). While cautioning "there is no definitive formula or list of factors to consider," *id.*, the court identified potential factors which it characterized as either private or public interests.

The private interests include: (1) plaintiff's forum preference as manifested in the original choice, (2) the defendant's preference, (3) whether the claim arose elsewhere, (4) the convenience of the parties as indicated by their relative physical and financial condition, (5) the convenience of the witnesses-but only to the extent that the witnesses may actually be unavailable for trial in one of the fora, (6) the location of books and records (similarly to the extent that the files could not be produced in the alternative forum). See *id.* (citations omitted).

Among the public interests are: (1) the enforceability of the judgment, (2) practical considerations that could make the trial easy, expeditious, or inexpensive, (3) the relative administrative difficulty in the two fora resulting from court congestion, (4) the local interest in deciding local controversies at home, and (5) the public policies of the fora. See *id.* (citations omitted).

\*3 Although the factors listed by the *Jumara* Court are merely illustrative and by no means exhaustive, the Court will address the *Jumara* factors which are applicable to the facts of this case as they represent a good point of departure for considering Biosite's motion to transfer. Omnipresent in a transfer analysis is the fact that Biosite bears the heavy burden of establishing the need for transfer. See *Shutte v. Armco Steel Corp.*, 431 F.2d 22, 25 (3d Cir.1970), cert. denied, 401 U.S. 910, 91 S.Ct. 871,

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27 L.Ed.2d 808 (1971); *Sunds Defibrator, Inc. et. al. v. Durametal Corp.*, 1997 WL 74660, at \*2 (D.Del. January 31, 1997). The Shutte Court further stated: “[U]nless the balance of convenience of the parties is strongly in favor of defendant, the plaintiff’s choice of forum should prevail.” *Shutte*, 431 F.2d at 25 (emphasis added); see also *Critikon v. Becton Dickinson Vascular Access, Inc.*, 821 F.Supp. 962, 964 (D.Del.1993) (“[T]ransfer will be denied if the factors are evenly balanced or weigh only slightly in favor of transfer.”).

#### IV. Discussion

##### A. Private Interests

##### 1. Plaintiffs’ Forum Preference

A plaintiff’s choice of forum is entitled to substantial deference and “should not be lightly disturbed.” *Shutte*, 431 F.2d at 25. This deference is particularly due when the plaintiffs have chosen their forum because of “legitimate, rational concerns.” *Waste Distillation Tech., Inc. v. Pan Am. Resources, Inc.*, 775 F.Supp. 759, 764 (D.Del.1991).

Biosite contends that there are no rational factors that weigh in favor of Behring’s choice of forum. Biosite points out that Delaware is not the home of Behring Diagnostics GmbH, nor is it the physical home of the soon to be formed Dade Behring, Inc., which is based in Illinois. Moreover, Biosite cites the “home turf” rule for the proposition that because Delaware is not Behring’s “home turf,” the Court should accord less weight to Behring’s choice of forum. Lastly, Biosite maintains that a statutory place of incorporation is entitled to less weight than if the physical presence of the company was in the selected jurisdiction. Biosite concludes that even though Delaware is the place of incorporation of Behring Diagnostics, Inc. and will be for the newly-formed Dade Behring, that fact has no practical bearing on the logistics of trial, and is entitled to little weight.

Behring, on the other hand, asserts that even though Delaware is not its principal place of business, its choice of forum is entitled to deference, and should not be upset unless the defendant can show the balance of convenience strongly favors transfer. Behring contends that its choice of forum is legitimate and rational because Syva is, and Dade Behring will be, a Delaware corporation, Biosite is a

Delaware corporation, Biosite pursues business activities in Delaware, Behring’s counsel would like to pursue mediation with Magistrate Judge Trostle of this District because of past satisfying experiences, and because Biosite is selling the infringing product in Delaware and is actively inducing infringement of the ‘241 Patent by such sales in Delaware.

\*4 The Delaware district court has not always been consistent as to what level of deference a plaintiff’s status as a Delaware corporation should play in the motion to transfer calculus. *Compare Joint Stock Soc’y v. Heublein, Inc.*, 936 F.Supp. 177, 187 (D.Del.1996) (“[Plaintiff’s] mere status as a plaintiff Delaware corporation is not entitled to great weight in determining whether to grant a motion to transfer, especially because [plaintiff’s] principal place of business is elsewhere.”), with *Critikon*, 821 F.Supp. at 965 (“[T]he fact that [plaintiff] incorporated in Delaware should not be taken lightly. By incorporating in Delaware, it can be assumed that [plaintiff] desired the benefits it believed Delaware provides to chartered corporations.”). Suffice it to say that, “[i]t is legitimate and rational ... for a plaintiff to choose to litigate in a forum in which it is incorporated.” See *Joint Stock Soc’y*, 936 F.Supp. at 187.

Moreover, Biosite’s reliance on the “home turf” rule is misplaced. Although the vitality of the home turf rule has recently been put in doubt, see *Sunds Defibrator*, 1997 WL 74660, at \*2 n. 2, to date it has not received a formal internment. To the extent, if any, that weak vital signs remain, it would not be applicable on the presented facts. The home turf rule applies when the forum closest to a plaintiff’s principal place of business is selected in order that personal service over the defendant can be obtained.<sup>FN3</sup> This is simply not the situation in this case.

FN3. This Court has recently cast doubt on this rule’s existence in *Sunds Defibrator*, in which the Court stated: “[A] strong argument can be made that the ‘home turf rule’ is now subsumed in the *Jumara* private interest factor with emphasis on ‘plaintiff’s forum preference.’ ” *Sunds Defibrator*, 1997 WL 74660, at \*2 n. 2.

Lastly, the Court finds that the other factors identified by Behring for bringing this case in Delaware are legitimate and rational reasons for Delaware to be the plaintiff’s choice of forum. See *Waste Distillation*,

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775 F.Supp. at 764 (“[S]ufficient that the forum is near the plaintiff’s principal place of business and/or that it is consistent with the plaintiff’s legitimate concerns.”). The fact that Biosite conducts a substantial amount of business in Delaware and that the infringing product continues to be sold in Delaware counsels in favor of Behring picking Delaware as its forum of choice. *See In re ML-Lee Acquisition Fund II, L.P.*, 816 F.Supp. 973, 976 (D.Del.1991); *Willemijn Houdstermaatschaap BV v. Apollo Computer, Inc.*, 707 F.Supp. 1429, 1437 (D.Del.1989). In addition, in cases where a plaintiff, like Biosite, is itself a Delaware corporation, the Court has stated: “[Where defendant] chose Delaware as its legal home ..., [it] should not now complain that another corporation has decided to sue [it] in Delaware.” *Critikon*, 821 F.Supp. at 965. Further, the fact that Behring’s counsel has had previously good experiences with mediation in this district with Magistrate Judge Trostle, cannot be said to be an illegitimate or irrational reason to pick the Delaware forum. For all these reasons, Delaware is a choice of forum based on the rational and legitimate concerns of Behring and plaintiff’s selection is due substantial deference.

## 2. Convenience of the Parties

\*5 Biosite contends that there is no practical or logical reason for this case to be tried in Delaware because the named parties do not have their operations in Delaware. Biosite also maintains the presence of key personnel at litigation on the East Coast would disrupt the companies’ operations. Lastly, Biosite asserts Behring Diagnostics, Inc., will no longer be an existing entity after the merger with Dade International and in any event, because Behring Diagnostics, Inc. was never alleged to be the owner or exclusive licensee of the ‘241 Patent, it has no standing to sue. Biosite therefore alleges that the convenience of the parties strongly favors transferring this litigation to the California forum.

Behring, on the other hand, argues that Delaware is not an inconvenient forum for Biosite. Behring points out that Biosite is a national company with thousands of Triage DOA units sold in Delaware every year. In addition, Behring challenges Biosite’s contention that loss of key personnel would disrupt its operations, as only four witnesses from Biosite have been identified. Behring also contends that Biosite is not a small company and would have no problem trying this case in Delaware. Lastly, Behring asserts that Delaware is a convenient forum

in which to litigate because Behring’s three offices that are most involved in this dispute—the Behring Diagnostics, Inc. office in San Jose, California, soon to be a Dade Behring office, the Dade Behring headquarters in Deerfield, Illinois, and Behring Diagnostics GmbH in Marburg, Germany—are all approximately equidistant to Delaware.

The Court finds that the convenience of the parties factor does not militate strongly in favor of either of the parties and this factor therefore does not strongly favor transfer. First, both parties are national corporations with revenues in the millions of dollars. *See The Media Group, Inc. et. al. v. Turtle Wax, Inc. et. al.*, 1996 WL 756760, at \*5 (D.Del. December 23, 1996). As such, the relative economic burden to Biosite in litigating in Delaware is minimal. *See id.* Second, although it is true that Biosite has its business operations in San Diego and it would be more convenient for key personnel to attend trial in the Southern District of California, it is also true that Delaware represents a good compromise for Behring since its relevant companies are located anywhere between San Jose and Germany. Third, Biosite’s contention that Behring Diagnostic does not have standing to sue is not properly before this Court on a motion to transfer. As such, the Court declines to address that issue at this time.

Given the above analysis, the convenience of the parties does not strongly weigh in favor of transferring this action to the Southern District of California.

## 3. Convenience of the Witnesses

Under § 1404(a), “the Court must determine whether the convenience to all witnesses weighs strongly in favor of a transfer.” *Pursuit Athletic Footwear v. Save Power Ltd.*, 1996 U.S.Dist. LEXIS 8158, at \*22 (D.Del. June 7, 1996). “While convenience of the witnesses is a factor, it is important only to the extent the witnesses would be unavailable for trial in one of the fora. Each party is able to procure the attendance of its own employees for trial.” *Sunds Defibrator*, 1997 WL 74660, at \*3.

\*6 Biosite contends that the convenience of the witnesses “entirely” favors the Southern District of California. Biosite argues that all of the most likely witnesses are in California, and many of the most important witnesses—including the two inventors and two attorneys that prosecuted the patent—are third parties and could only be compelled to appear in



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California. Behring, on the other hand, asserts that as the inventors, Tom and Rowley, are now consultants for Behring, these witnesses have agreed to testify in Delaware. In addition, Behring maintains that Dr. Ullman, another third-party witness identified by Biosite, is also employed as a consultant for Behring and has agreed to appear in Delaware. As for the two patent attorneys, Dr. Leitereg and Betrand Rowland, Behring avers that Rowland will voluntarily appear in Delaware and because Dr. Leitereg is sick, he would probably be unable to appear in California or Delaware.

The Court does not find that convenience of the witnesses strongly favors transfer. It is true that mere assurances that a witness has agreed to testify in the fora is not equivalent to having the actual subpoena power of assuring a witnesses' presence. See *Schering Corp. v. Amgen Inc.*, 969 F.Supp. 258, 269 (D.Del.1997) (citing *Sherwood Medical Co. v. IVAC Medical Systems, Inc.*, 1996 WL 700261, at \*5 (D.Del. November 25, 1996)). While counsel for Behring cannot guarantee that these witnesses will appear in Delaware, they would all certainly be within the subpoena power of the Southern District of California as California citizens.

However, both parties at oral argument conceded that if it became clear shortly before trial that one of these critical witnesses, i.e., Tom, Rowley, Ullman or Rowland, refused to come to Delaware, and was capable testifying live in California, it would be in the Court's power to transfer the case to the Southern District of California. Biosite points out, however, that such a late transfer may not be practical and may cause significant delay. Be that as it may, to the extent that the convenience of the witnesses weighs in favor of Biosite, it does not do so strongly given the option available to the Court to transfer this case later in the proceedings should it appear necessary to defendant.

#### 4. Location of Documents

Biosite makes much of the argument that most of the relevant documents are located in California. But as Behring correctly observes, "transferring documents from the West Coast to Delaware poses no large obstacle." See *Schering*, 969 F.Supp. at 269. Further, this factor is only relevant to the extent that files could not be produced in the alternative forum. See *Jumara*, 55 F.3d at 879. Because there has been no showing that any relevant document could not be produced in Delaware or that transferring documents

to Delaware would pose a significant burden, the Court concludes that this factor does not strongly favor transfer.

Thus, although one of the private factors considered above, namely the convenience of the witnesses, may weigh to some extent in favor of transfer, when construed in light of the strong deference paid to plaintiff's choice of forum, the private interests do not **strongly** favor transfer to the Southern District of California.

### B. Public Interests

#### 1. Practical Considerations of Efficiency and Expense

\*7 Biosite asserts the relative congestion of the courts does not favor Delaware over the Southern District of California. To support its argument, Biosite cites court statistics that show the mean time from filing to disposition is slightly shorter in the Southern District of California than in the District of Delaware. Biosite also observes that since Syva previously brought an action for infringement of the same '241 Patent against Hybritech, Inc., see *Syva Company, Inc. v. Hybritech Inc.*, 1989 U.S. Dist. LEXIS 16678 (S.D.Cal.1989), the California forum would be more appropriate for this litigation. Behring, on the other hand, contends that one of the reasons it chose to litigate in Delaware was because of the relatively light docket and speedy disposition of cases. In addition, Behring points out that the Southern District of California has little knowledge or memory of the underlying technologies discussed in the Syva case.

Delaware's light docket "has been repeatedly recognized as a legitimate reason by both the Third Circuit Court of Appeals and this district." *Media Group*, 1996 WL 756760, at \*7. In addition, pursuant to Delaware's Civil Justice Expense and Delay Reduction Plan and the Civil Justice Reform Act of 1990, "trial [in Delaware] shall be scheduled to occur within 12 months, if practicable, and no later than 18 months, after the filing of the complaint." See 28 U.S.C. § 471 (1993); D.Del.LR 16.2(c). Lastly, the Court finds no significance in the fact that the Syva case, which occurred almost ten years ago and involved two different parties, was in California. The Court therefore holds that this factor also does not weigh strongly in favor of transfer.

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## 2. The Local Interest and Public Policies of Fora

Biosite contends that since it is headquartered in California, has research and manufacturing facilities in California, and most of the relevant events occurred in California, the public interest favors transfer to California. Biosite urges the Court to adopt the "center of gravity" test. Briefly stated, that test states that when the center of gravity of the patent infringement suit is not the plaintiff's preferred forum, less weight should be given to plaintiff's choice of forum. *See, e.g., Renzetti v. D.H. Thompson, Inc.*, 1997 U.S.Dist. LEXIS 6121, at \*9 (E.D.Pa. May 2, 1997). Biosite maintains that the center of gravity is California and therefore, California is the appropriate forum for this patent litigation. Behring asserts because Biosite sells their products in Delaware and because there have been acts of infringement in Delaware, Delaware is just as an appropriate forum as California.

The *Schering* Court, in a similar patent transfer case, directly answered Biosite's "center of gravity" challenge in the following manner:

First, although headquartered in California, [defendant] is a Delaware corporation. More significant, however, is the nature of the dispute in this case. [The allegedly infringing product] is sold internationally and generates millions of dollars in revenues. The dispute over the [patent in suit] can hardly be described as a local California controversy, or implicating public policies unique to California. Accordingly, the public interests in this case do not tip the balance of convenience strongly in favor of [defendant].

\*8 *Schering*, 969 F.Supp. at 269. This holding applies equally to the facts of this case. The Court holds that the public interests, represented by the public policies of the fora and the local interest of deciding controversies at home, do not weigh strongly in favor of transfer.

Because, on balance, both the public and private interests therefore do not weigh strongly in favor of transferring this litigation to the Southern District of California, Biosite's motion to transfer will be denied.

An appropriate order will issue.

D.Del.,1998.

Bering Diagnostics GmbH v. Biosite Diagnostics, Inc.

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Briefs and Other Related Documents ([Back to top](#))

• [1:97CV00501](#) (Docket) (Sep. 02, 1997)

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Briefs and Other Related Documents

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United States District Court, D. Delaware.  
 SONY ELECTRONICS, INC., Sony Computer  
 Entertainment America, Inc., Sony Pictures  
 Entertainment, Inc., Sony Connect, Inc., Sony Online  
 Entertainment, Inc., Sony Corporation of America,  
 Sony BMG Music Entertainment, Inc., Sony Ericsson  
 Mobile Communications (USA), Inc., Plaintiffs,  
 v.  
 ORION IP, LLC, Defendant.  
 No. C.A. 05-255(GMS).

March 14, 2006.

Josy W. Ingersoll, Young, Conaway, Stargatt &  
 Taylor, Wilmington, DE, for Plaintiffs.  
Donald E. Reid, Morris, Nichols, Arsht & Tunnell,  
 Wilmington, DE, for Defendant.

## MEMORANDUM

SLEET, J.

\*1 On November 23, 2004, Orion IP, LLC ("Orion"), a Delaware corporation headquartered in Texas, filed a patent infringement suit in the United States District Court for the Eastern District of Texas against fifteen individual defendants, none of whom are parties to this action. However, on February 10, 2005, Orion amended its complaint to add additional parties, including Sony Corporation of America ("SCA"). On April 7, 2005, SCA responded by filing an answer in the Texas action asserting the affirmative defenses of non-infringement and invalidity as to both patents in suit. Then, on May 2, 2005, SCA and seven other so-called non-SCA plaintiffs filed an action in this court seeking a declaratory judgment of non-infringement and invalidity with respect to the same patents as those asserted against SCA in the Texas action. However, although the patents at issue are the same, the potentially-infringing products of the non-SCA plaintiffs-their websites-are allegedly different than the accused SCA website. Presently before the court is Orion's motion to either dismiss or stay this case under the first-filed rule, or alternatively, to transfer it to the Eastern District of Texas pursuant to 28 U.S.C.A. § 1404(a) (1993). (D.I.11.)

Generally speaking, the first-filed rule is as simple as

its name suggests: "[w]here two patent lawsuits involving the same claims are filed in different jurisdictions, the Federal Circuit requires that the first-filed action be given preference absent special circumstances." Corixa Corp. v. IDEC Pharm. Corp., No. 01-615-GMS, 2002 WL 265094, at \*1 (D.Del. Feb.25, 2002). The present case presents a small complication, however, because only one of the plaintiffs in this action is a defendant in the Texas action. But, that complication is not too difficult to overcome because "Civil Procedure Rule 21 permits any claim against a party to be severed and proceeded with separately." Triangle Conduit & Cable Co. v. Nat'l Elec. Prods. Corp., 125 F.2d 1008, 1009 (3d Cir.1942). Moreover, "Rule 21 permits a court to sever claims *sua sponte*." United States v. AMTRAK, No. 86-1094, 2004 U.S. Dist. LEXIS 10867, at \*21 (E.D. Pa. June 15, 2004). That being the case, and there being no discernable prejudice in severing SCA's claims against Orion, the court will exercise its power to do so. As a result, the court is confronted with a declaratory judgment action by SCA alone, the inverse of which (i.e., an infringement action) was filed about three months earlier in Texas. Therefore, pursuant to the first-filed rule, SCA must be dismissed from this case. *Cf. Triangle Conduit*, 125 F.2d at 1009 (holding that this district was under a duty to enjoin a patent-holding defendant in a declaratory judgment action from pursuing an infringement action in another district against the declaratory judgment plaintiff, even though the infringement action in the other district would proceed against other parties in the absence of the declaratory judgment plaintiff).

\*2 With SCA out of the case, the court must still decide the fate of the non-SCA plaintiffs. Orion first argues that, like SCA itself, the non-SCA plaintiffs are subject to the first-filed rule under the holding of *Corixa*, where this court granted a motion to transfer a patent infringement action, based on the first-filed rule, to a district where a previous declaratory judgment action had been filed, even though one of the plaintiffs in the patent infringement action was not a defendant in the declaratory judgment action. 2002 WL 265094, at \*1-\*2. However, that plaintiff was a licensee of a defendant in the declaratory judgment action, and could therefore request permission to join that action after the transfer. *Id.* at \*2. In this case, the non-SCA plaintiffs cannot be licensees of SCA because SCA is not the patentee.

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Moreover, the "accused products" in this action are the websites of the non-SCA plaintiffs, which are allegedly different than the SCA website accused in the Texas action. Thus, *Corixa* is distinguishable, and the first-filed rule does not apply to the non-SCA plaintiffs.

Orion's next argument is that the action should be transferred pursuant to § 1404(a). In *Jumara v. State Farm Insurance Co.*, the Third Circuit outlined six private interests and six public interests relevant to such a transfer. The private interests are:

- (1) The plaintiff's forum preference as manifested in the original choice;
- (2) The defendant's preference;
- (3) Whether the claim arose elsewhere;
- (4) The convenience of the parties as indicated by their relative physical and financial condition;
- (5) The convenience of the witnesses-but only to the extent that the witnesses may actually be unavailable for trial in one of the fora; and
- (6) The location of books and records (similarly limited to the extent that the files could not be produced in the alternative forum).

55 F.3d 873, 879 (3d Cir.1995). Aside from Orion's preference for Texas and the non-SCA plaintiffs' preferences for Delaware, none of the other private interests are particularly relevant. Orion disagrees, and argues that convenience weighs in favor of transfer. Although Texas may indeed be more convenient for Orion, all of the non-SCA plaintiffs (and Orion) are incorporated in Delaware-a fact that certainly weighs against transfer. At best, then, the private interests are a wash.

The public interests outlined in *Jumara* include:

- (1) The enforceability of the judgment;
- (2) Practical considerations that could make the trial easy, expeditious, or inexpensive;
- (3) The relative administrative difficulty in the two fora resulting from court congestion;
- (4) The local interest in deciding local controversies at home;
- (5) The public policies of the fora; and
- (6) The familiarity of the trial judge with the applicable state law in diversity cases.

*Id.* at 879-80. Here, Orion argues that although it and the remaining plaintiffs are all Delaware corporations, the local interest favors Texas because Orion has offices in that state. In *Corixa*, three parties were Delaware corporations, and yet, that fact did not weigh against transferring the case to California because the "patents deal[t] with the treatment of

lymphoma, .... [which] has far-reaching implications [beyond Delaware's borders]." 2002 WL 265094, at \*4. By the same token, the fact that Orion has offices in Texas does not weigh in favor of transfer where the patents deal with technology used in internationally-accessible websites. Orion also argues that because litigation involving the same patents is already underway in Texas, judicial resources will be saved granting a transfer. Although there may be some efficiency to be gained by consolidating certain aspects of discovery, Orion ignores the possibility that collateral issues specific to any one of the many unrelated parties involved in both cases may create inefficiencies that would not arise if the proceedings remained separate. *See Codex Corp. v. Milgo Elec. Corp.*, 553 F.2d 735, 739 (1st Cir.1977) ("Nor are we fully convinced of the propriety of using another customer suit of another manufacturer, which, incidentally, may have very different collateral issues, as a magnet to draw a suit to a jurisdiction where it otherwise should not be."). Moreover, simply because Orion initiated an action in Texas involving one set of parties, it should not be able to "bootstrap itself into staying there" when subsequent litigation arises involving a different set of parties. *Id.*

\*3 In short, the *Jumara* interests do not weigh in favor of transfer, and therefore, Orion's motion must be denied as to the non-SCA plaintiffs.

## ORDER

IT IS HEREBY ORDERED THAT:

1. Orion's motion to dismiss (D.I.11) be GRANTED in part and DENIED in part; and
2. The claims of SCA against Orion be SEVERED and DISMISSED.

D.Del.,2006.  
Sony Electronics, Inc. v. Orion IP, LLC  
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Briefs and Other Related Documents ([Back to top](#))

- 2005 WL 2385656 (Trial Motion, Memorandum and Affidavit) Orion Ip, Llc'S Reply Brief in Support of its Motion to Dismiss, Stay, or Transfer this Action to the Eastern District of Texas (Jul. 29, 2005) Original Image of this Document (PDF)
- 2005 WL 2385533 (Trial Motion, Memorandum and Affidavit) Plaintiffs' Response in Opposition to

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Defendant's Motion to Dismiss, Stay or Transfer This  
Action to the Eastern District of Texas (Jul. 19, 2005)

Original Image of this Document (PDF)

- 2005 WL 1307841 (Trial Pleading) Complaint for  
Declaratory Judgment (May 2, 2005) Original Image  
of this Document (PDF)

- 1:05cv00255 (Docket) (May. 02, 2005)

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Briefs and Other Related Documents

Only the Westlaw citation is currently available.

United States District Court, D. Delaware.  
SRU BIOSYSTEMS, INC., Plaintiff,  
v.

Douglas S. HOBBS, James J. Cowan and Coho  
Holdings, Llc, Defendants.  
No. Civ. 05-201-SLR.

Sept. 13, 2005.

John G. Day, Steven J. Balick, Ashby & Geddes,  
Wilmington, DE, for Plaintiff.

Dale R. Dube, Blank Rome LLP, Wilmington, DE,  
for Defendants.

MEMORANDUM ORDER

ROBINSON, J.

\*1 At Wilmington this 13th day of September, 2005,  
having considered defendants' motion to transfer and  
the papers submitted in connection therewith;

IT IS ORDERED that said motion to transfer (D.I.11)  
is denied for the reasons that follow:

1. Introduction. On April 7, 2005, plaintiff SRU Biosystems, Inc. ("SRU") filed suit pursuant to 35 U.S.C. § 256 against defendants Douglas S. Hobbs ("Hobbs"), James J. Cowan ("Cowan") and CoHo Holdings LLC ("CoHo"). (D.I.1) Plaintiff seeks to have Dr. Brian Cunningham added as a named inventor on U.S. Patent No. 6,870,624 ("the '624 patent") and U.S. Patent No. 6,791,757 ("the '757 patent").<sup>FN1</sup> Alternatively, plaintiff seeks a Declaratory Judgment that the patents in suit are unenforceable because of the alleged inequitable conduct of the defendants Hobbs and Cowan, the named inventors, as well as their attorneys. On May 7, 2005, defendants filed their answer and counterclaims for patent infringement against SRU. (D.I.7) SRU has denied the counterclaim. (D.I.8) On July 1, 2005, defendants moved to transfer the action to the United States District Court for the District of Massachusetts. (D.I.11, 12) Plaintiff filed its opposition to which defendants have replied. (D.I.15, 16)

FN1. Collectively referred to as "the patents in suit."

2. Background. SRU is a Delaware corporation that developed and is close to commercializing a biosensor device to be used in the field of diagnostics and drug research. (D.I. 1 ¶ 10) SRU has over thirty pending U.S. and foreign patent applications that relate to the biosensor concept. Dr. Brian Cunningham ("Cunningham") is a research scientist, one of the founders of SRU and Chief Technical Officer of SRU. Cunningham resides in Illinois and has assigned all of his inventions to SRU. (*Id.* at ¶ 7)

3. Hobbs is the president of CoHo and Cowan is a manager of Coho. Cowan and Hobbs reside in Lexington, Massachusetts. Cowan and Hobbs are named inventors on the patents in suit and have assigned their rights in the patents to CoHo. Coho is a limited liability company organized under the laws of the State of Delaware with its principal place of business in Burlington, Massachusetts. (D.I.12, Ex. C, Ex. A) In addition to Cowan and Hobbs, Coho employs one other person. Coho does not have a place of business in Delaware and does no business in the State. (D.I.12, Ex. C)

4. In October 2000, SRU hired Hobbs as a consultant to assist Cunningham in the fabrication of the optical component of a biosensor product. Hobbs continued as a consultant until June 30, 2001. Cunningham filed a number of patent applications related to a biosensor device and assigned those applications to SRU. He recognized Hobbs as a co-inventor on certain applications. SRU contends that Hobbs initially agreed to assign his rights to the patents, but has had since refused to do so.<sup>FN2</sup>

FN2. SRU claims that Hobbs signed a Memorandum of Understanding ("MOU") memorializing this agreement.

5. Subsequently, Hobbs and Cowan filed their own applications on a biosensor and assigned those applications to CoHo, but did not name Cunningham as an inventor. Those applications were issued as the patents in suit.

\*2 6. Other litigation. In December 2004, SRU filed a lawsuit against Hobbs in Massachusetts state court

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for breach of contract and unfair competition. (D.I.15, Ex. D) SRU seeks to enforce the terms of the MOU and requests a permanent injunction ordering Hobbs to execute an assignment of the applications to SRU. The initial filings describe the lawsuit as follows:

This is a case ... involving a claim to determine the use or status of intellectual property. The details are as follows: Defendant Hobbs worked for SRU as a consultant for the development of a novel colorimetric resonant biosensor. Before beginning work as a consultant, Hobbs agreed to keep all information relating to the biosensor technology confidential ... Hobbs executed a MOU in which he agreed to "assign irrevocably and exclusively on a royalty free basis to SRU ... all rights pertaining to the jointly-developed technology as it applies to biochemical and biological testing, sensing and/or detection. Subsequent to signing the MOU, SRU filed numerous patent applications relating to the development of the biosensor technology ... SRU has asked Hobbs to execute an assignment of the applications pursuant to the terms of the MOU, but Hobbs has refused to execute the assignment. (D.I.16, Ex. D)

7. On June 29, 2005, the Massachusetts Superior Court entered an interim order directing Hobbs to comply with discovery and deferring decision on the "prosecution bar" issue until a later date. (D.I.15, Ex. G)

8. SRU has also commenced actions against Hobbs, Cowan and CoHo in Federal Court in Canada and in Ontario Superior Court. (D.I.12, Ex. D, E) These lawsuits are pending.

9. Standard of Review. Under 28 U.S.C. § 1404(a), a district court may transfer any civil action to any other district where the action might have been brought for the convenience of parties and witnesses and in the interests of justice. Congress intended through § 1404 to place discretion in the district court to adjudicate motions to transfer according to an individualized, case-by-case consideration of convenience and the interests of justice. *Stewart Org., Inc. v. Ricoh Corp.*, 487 U.S. 22, 29, 108 S.Ct. 2239, 101 L.Ed.2d 22 (1988); *Affymetrix, Inc. v. Synteni, Inc.*, 28 F.Supp.2d 192, 208 (D.Del.1998).

10. The burden of establishing the need to transfer rests with the movant "to establish that the balance of convenience of the parties and witnesses strongly favors the defendants." *Bergman v. Brainin*, 512

F.Supp. 972, 973 (D.Del.1981) (citing *Shutte v. Armco Steel Corp.*, 431 F.2d 22, 25 (3d Cir.1970). "Unless the balance is strongly in favor of a transfer, the plaintiff's choice of forum should prevail". *ADE Corp. v. KLA-Tencor Corp.*, 138 F.Supp.2d 565, 567 (D.Del.2001); *Shutte*, 431 F.2d at 25.

11. The deference afforded plaintiff's choice of forum will apply as long as a plaintiff has selected the forum for some legitimate reason. *C.R. Bard, Inc. v. Guidant Corp.*, 997 F.Supp. 556, 562 (D.Del.1998); *Cypress Semiconductor Corp. v. Integrated Circuit Systems, Inc.*, 2001 WL 1617186 (D.Del. Nov.28, 2001); *Continental Cas. Co. v. American Home Assurance Co.*, 61 F.Supp.2d 128, 131 (D.Del.1999). Although transfer of an action is usually considered as less inconvenient to a plaintiff if the plaintiff has not chosen its "home turf" or a forum where the alleged wrongful activity occurred, the plaintiff's choice of forum is still of paramount consideration, and the burden remains at all times on the defendants to show that the balance of convenience and the interests of justice weigh strongly in favor of transfer." *In re M.L.-Lee Acquisition Fund II, L.P.*, 816 F.Supp. 973, 976 (D.Del.1993).

\*3 12. The Third Circuit Court of Appeals has indicated that the analysis for transfer is very broad. *Jumara v. State Farm Ins. Co.*, 55 F.3d 873, 879 (3d Cir.1995). Although emphasizing that "there is no definitive formula or list of factors to consider," *id.*, the Court has identified potential factors it characterized as either private or public interests. The private interests include: "(1) plaintiff's forum preference as manifested in the original choice; (2) defendant's preference; (3) whether the claim arose elsewhere; (4) the convenience of the parties as indicated by their relative physical and financial condition; (5) the convenience of the witnesses but only to the extent that the witnesses may actually be unavailable for trial in one of the fora; and (6) location of books and records (similarly limited to the extent that the files could not be produced in the alternative forum)." *Id.* (citations omitted).

13. The public interests include: "(1) the enforceability of the judgment; (2) practical considerations that could make the trial easy, expeditious or inexpensive; (3) the relative administrative difficulty in the two fora resulting from court congestion; (4) the local interest in deciding local controversies at home; (5) the public policies of the fora; and (6) the familiarity of the trial judge with the applicable state law in diversity cases." *Id.* (citations omitted).



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14. Discussion. Defendants submit that transfer is warranted because Massachusetts is the more convenient forum and SRU's preferred choice of forum. (D.I.12) Specifically, Massachusetts is the principal place of business for SRU, CoHo and where Hobbs and Cowan reside. Further, all events, witnesses and the execution of the MOU occurred in Massachusetts while, conversely, there is no connection to Delaware. Moreover, because SRU's Massachusetts action involves the same set of events, defendants assert that the court should sua sponte consolidate the two cases as well as the Canadian actions and transfer to the District of Massachusetts.

15. SRU opposes transfer on several grounds. First, it contends that the action at bar and the Massachusetts case involve different patents, different issues and different legal standards. Second, as a Delaware corporation, SRU's choice of forum should be afforded deference. Third, SRU asserts that the motion to transfer is part of a strategy to undermine the litigation.

16. Weighing the arguments against the *Jumara* balancing test, the court finds that the asserted advantages of moving the case to the District of Massachusetts are insufficient to warrant a transfer. Defendants' complaints about litigating here are outweighed by the fact that CoHo has enjoyed the benefits and protections as a limited liability company in Delaware and that the state has an interest in litigation regarding companies like SRU that are incorporated within its jurisdiction. Moreover, there is nothing of record to reflect any problems with potential witnesses refusing to travel to Delaware for trial. In fact, the record is devoid of any specific problems with witnesses, documents or business operations posed by litigating in Delaware. Considering that discovery can be conducted at any location convenient to the parties and their employees, the only event that will take place in Delaware is the trial. The travel expenses and inconveniences incurred for that purpose is not overly burdensome.

\*4 17. Clearly, the dispute at bar has become a very personal one between the parties. The dispute is now being litigated by four different courts in four different judicial systems, none of which has the authority to consolidate the cases.<sup>FN3</sup> The papers submitted in connection with this matter suggest that neither plaintiff nor defendants are being entirely reasonable in their litigation strategies. Therefore, while the court's conclusion to deny transfer is

consistent with its resolution of other transfer motions, the court will reconsider the transfer issue or, alternatively, impose sanctions if it determines that either plaintiff or defendants are abusing the judicial process while pursuing resolution of the lawsuit initiated here.

FN3. To the extent defendants implicitly argue that the "first-filed rule" applies, the court disagrees. The first-filed rule requires that, where cases are pending in "federal courts of equal rank", *E.E.O.C. v. University of Pennsylvania*, 850 F.2d 969, 971 (3d Cir.1988), "the court which first had possession of the subject must decide it" while the second filed action should be stayed or transferred to the court where the first filed action is pending. *Crosley Corp. v. Hazeltine Corp.*, 122 F.2d 925, 929 (3d Cir.1941)(quoting *Smith v. McIver*, 22 U.S. (9 Wheat.) 532, 6 L.Ed. 152 (1824)). There are no other federal district court cases pending; therefore, this rule has no applicability.

18. Conclusion. For the reasons stated, defendant's motion to transfer (D.I.11) is denied.

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 SRU Biosystems, Inc. v. Hobbs  
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Briefs and Other Related Documents ([Back to top](#))

- [2005 WL 1171972](#) (Trial Pleading) Complaint (Apr. 7, 2005) Original Image of this Document (PDF)
- [1:05cv00201](#) (Docket) (Apr. 07, 2005)

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Briefs and Other Related Documents

Only the Westlaw citation is currently available.

United States District Court, D. Delaware.  
 SUNDS DEFIBRATOR, INC., a Delaware corporation; Sunds Defibrator Industries AB, a Swedish corporation; and Sunds Defibrator Refiner Segments AB, a Swedish corporation, Plaintiffs,  
 v.

DURAMETAL CORPORATION, a Delaware corporation, Defendant.

No. CIV. A. 96-483 MMS.

Argued Jan. 22, 1997.

Decided Jan. 31, 1997.

N. Richard Powers, and Harold Pezzner, of Connolly, Bove, Lodge & Hutz, Wilmington, Delaware; of counsel: Sidney David, John R. Nelson, and John P. Maldjian, of Lerner, David, Littenberg, Krumholz & Mentlik, Westfield, New Jersey, for plaintiffs. Elizabeth M. McGeever, of Prickett, Jones, Elliott, Kristol & Schnee, Wilmington, Delaware; of counsel: David H. Binney, and Douglas H. Blomgren, of Preston Gates & Ellis, Seattle, Washington, for defendant.

*MEMORANDUM OPINION*

MURRAY M. SCHWARTZ, Senior District Judge.

## INTRODUCTION

\*1 Plaintiffs in this lawsuit are Sunds Defibrator, Inc. ("SDI"), a Delaware corporation with its principal place of business in Norcross, Georgia; Sunds Defibrator Industries AB ("Sunds"), a Sweden corporation with its principal place of business in Sundsvall, Sweden; and Sunds Defibrator Refiner Segments AB ("SDRS"), a wholly-owned subsidiary of Sunds and a Sweden corporation with its principal place of business in Hagfors, Sweden (collectively "plaintiffs"). Docket Item ("D.I.") 1, at 2. Plaintiffs, alleging patent infringement, sued Durametal Corp., a Delaware corporation which has its principal place of business in Tualatin, Oregon. *Id.*; D.I. 7, at 3. Pursuant to 28 U.S.C. § 1404(a), Durametal seeks to transfer venue to the United States District Court for the District of Oregon. D.I. 6.

Two patents owned by Sunds are at issue: U.S. Patent No. 5,362,003 (the "003 patent") entitled "Refining Segment;" and U.S. Patent No. 5,439,183 (the "183 patent") for "Refiner Segment." D.I. 1, at 2. Both are directed to a "refiner segment for use in disk refiners for the treatment of lignocellulose-containing materials," *id.* at 3; such technology relates to processing wood and wood byproducts to make paper, fiberboard and particle board. D.I. 7, at 3. It is asserted in the complaint that Sunds, through SDRS and SDI, markets and sells the products covered by these patents in the United States and defendant has infringed both patents. D.I. 1, at 3.

## FACTS

Durametal is a Delaware corporation with its principal place of business in Oregon. D.I. 7, at 3. Other than its Delaware incorporation, it has no other ties to the District of Delaware. *Id.* Durametal has submitted a declaration by its president, Donald Dauterman, asserting Durametal "has no offices, employees, sales persons, mail drops, bank accounts, telephone numbers or warehouses in the state of Delaware." D.I. 8, ¶ 2. Durametal designs and manufactures its allegedly infringing product in the same location as the company's headquarters, Tualatin, Oregon. D.I. 7, at 3.

Durametal through affidavit has advised the Court five current employees are knowledgeable about the design, manufacture and sale of the alleged infringing products: President Donald Dauterman, Vice President Ian Deuchars, Product Engineer Kenneth Hall, Engineering Manager Dan Higgins and Director of Marketing Gus Keyser. *Id.* at 4; D.I. 8 ¶ 4.<sup>FN1</sup> All relevant documents, according to defendant, are located in Tualatin, Oregon as well. D.I. 8 ¶ 4. Durametal also points to two potential non-party witnesses: former owners of Durametal "with knowledge of earlier designs of Durametal refiner plates ... which may be prior art to the patents in suit" who currently reside in Oregon. D.I. 7, at 4; D.I. 8 ¶ 5.

<sup>FN1</sup>. Dauterman in an affidavit dated October 30, 1996, states as of that date he was recovering from back surgery and extended travel would be "extremely

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uncomfortable and painful.” *Id.* ¶ 7.

Plaintiffs assert their relevant witnesses reside either in Sweden or in Norcross, Georgia. D.I. 10, at 3. They are all current employees. *Id.*; Declaration of Hannu Melarti ¶ 5. Specifically, they are Nils Virving, the inventor of record on both patents and SDRS General Manager for Product Development and Research, who lives in Sweden; Hakan Norberg, the President of SDRS, who also resides in Sweden; Jan-Ake Gaven, Manager for Materials Development at SDRS, and also a resident of Sweden; Thomas Wikman, General Manager for Refiner Segments for SDI, who resides in the state of Georgia and Robert Guiler, Sales Manager for Refiner Segments for SDI, also a Georgia resident. *Id.*; Declaration of Hannu Melarti ¶ 5.

\*2 Plaintiffs finally note this forum is closer to the home offices of all plaintiffs than is the District of Oregon. Delaware is closer to plaintiffs' attorneys, who are located in New Jersey, and their documents, located in Georgia and Sweden. D.I. 10, at 4.

#### DISCUSSION

28 U.S.C. § 1404(a) governs transfer:

For the convenience of parties and witnesses, in the interest of justice, a district court may transfer any civil action to any other district or division where it might have been brought.

As plaintiffs do not contest this action could have been brought in the District of Oregon, *see* D.I. 10, at 5, the Court must examine (1) the convenience of the parties, (2) the convenience of witnesses and (3) the interest of justice. The Third Circuit Court of Appeals in *Jumara v. State Farm Insurance Company*, 55 F.3d 873, 879 (3d Cir. 1995), set forth a number of factors to be considered under the umbrella of these three broad categories:

The private interests have included: plaintiff's forum preference as manifested in the original choice, ... the defendant's preference, ... whether the claim arose elsewhere, ... the convenience of the parties as indicated by their relative physical and financial condition, ... the convenience of the witnesses -- but only to the extent that the witnesses may actually be unavailable for trial in one of the fora, ... and the location of books and records (similarly limited to the extent that the files could not be produced in the alternative forum), ...

The public interests have included: the enforceability

of the judgment, ... practical considerations that could make the trial easy, expeditious, or inexpensive, ... the relative administrative difficulty in the two fora resulting from court congestion, ... the local interest in deciding local controversies at home, ... the public policies of the fora ... and the familiarity of the trial judge with the applicable state law in diversity cases, ....”

*Id.* (citations omitted). However, the appellate court noted “there is no definitive formula or list of the factors to consider.” *Id.* *Jumara* does not appear to undermine the Third Circuit Court of Appeals' earlier opinion in *Shutte v. Armco Steel Corp.*, 431 F.2d 22, 25 (3d Cir. 1970), *cert. denied*, 401 U.S. 910 (1971), in which it was stated the party seeking the transfer, Durametal, bears the burden of establishing the need for transfer. In *Shutte* it was stated, “unless the balance of convenience of the parties is strongly in favor of defendant, the plaintiff's choice of forum should prevail.” 431 F.2d at 25 (citation omitted).

After consideration of “all relevant factors to determine whether on balance the litigation would more conveniently proceed and the interests of justice be better served by transfer to a different forum,” *Jumara*, 55 F.3d at 879 (citation omitted), the Court will deny Durametal's motion to transfer. <sup>FN2</sup>

<sup>FN2</sup>. In their briefs, both parties addressed the “home turf” rule, which has never been cited in any opinion of the Third Circuit Court of Appeals, but instead was born, bred and propagated in the District of Delaware. The earliest reference to the rule is found in *Burroughs Wellcome Co. v. Giant Food, Inc.*, 392 F. Supp. 761, 763 (D. Del. 1975). The rule holds the presumption against transfer is especially strong when a plaintiff's choice of forum is its home turf. *The Media Group, Inc. v. Turtle Wax, Inc.*, No. 96-234, 1996 WL 756760, at \*4 (D. Del. Dec. 23, 1996).

When first utilized, a corporate plaintiff's home turf referred to the location of its principal place of business, and plaintiff's decision to litigate there was entitled to great deference based on the convenience to plaintiff of litigating in a place near to its home. *Id.*; *see also The Joint Stock Society v. Heublein, Inc.*, 936 F. Supp. 177, 186 (D. Del. 1996). The definition of home turf has since been expanded to cover the forum closest to a plaintiff's principal place of

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business in which personal service over the defendant can be obtained. Media Group, 1996 WL 756760, at \*4.

Although not briefed or argued by the litigants, a strong argument can be made that the "home turf" rule is now subsumed in the *Jumara* private interest factor with emphasis on "plaintiff's forum preference." At any rate, the concept of home turf is no longer meaningful in this case because plaintiff's home offices are so far from Delaware. To reiterate, plaintiffs' choice of forum is entitled to deference in this case; however, the status of Delaware as plaintiff's home turf is not relevant to the decision.

#### A. Private Interests

\*3 The private interests of the litigants include the parties' respective choices, where the claim arose, the parties' respective financial conditions, and the convenience of witnesses and location of books and records to the extent that either the witnesses or the records might not be made available for trial, according to the Third Circuit Court of Appeals. Jumara, 55 F.3d at 879.

Weighing most of these private interests does not lead to a result that strongly favors either party. Neither party has provided the Court with documentation of their respective financial conditions; at oral argument it was conceded both parties could bear the financial burden of litigating away from home. Books and records could be made available in either court -- plaintiffs would have to transfer documents from Sweden and Georgia to whichever district is the trial forum. Durametal's records are in Oregon, and additionally, Durametal has asserted it wishes to produce its heavy refiner plates at trial. At this point in the litigation, it appears only 2 refiner plates, each weighing approximately 30 lbs, will be relevant at trial. This is not sufficient to call for transfer to Oregon.

As this Court recently stated, "Convenience of the witnesses' is a phrase encompassing geographic location of witnesses relative to the forum and an 'interest of justice' consideration, i.e., whether the witnesses are physically available for trial in either of the competing fora." Sherwood Medical Co. v. IVAC Medical Systems, Inc., No. 96-305, 1996 WL 700261, at \*4 (D. Del. Nov. 25, 1996). "As between geographic proximity of witnesses and being assured a court will hear live testimony, the latter in most instances will be the far more important

consideration." *Id.* The Supreme Court has asserted, in the context of a motion for dismissal based on the doctrine *forum non conveniens*, "[c]ertainly to fix the place of trial at a point where litigants cannot compel personal attendance and may be forced to try their cases on deposition, is to create a condition not satisfactory to court, jury or most litigants." Gulf Oil Corp. v. Gilbert, 330 U.S. 501, 511 (1947).

The Third Circuit appellate court has instructed that while convenience of the witnesses is a factor, it is important only to the extent the witnesses would be unavailable for trial in one of the fora. Jumara, 55 F.3d at 879. Each party is able to procure attendance of its own employees for trial. Therefore, at issue is only non-party witnesses. The only possibility of non-party witnesses arises because Durametal urges it may<sup>FN3</sup> wish to call several non-party witnesses -- former employees -- who still reside in Oregon, and therefore are subject to compulsory process there. Durametal has not indicated these witnesses will not testify if the trial takes place in Delaware, nor has it explained the essential nature of their testimony. See Sherwood, 1996 WL 700261, at \*4 (when evaluating the potential absence of a witness due to lack of compulsory process, what is important is "the Court's impression of the nature of prospective testimony to be given by the witness -- does it go to an important issue, is it cumulative, is a witness employed by a party and therefore available in any fora, and like considerations"). Because of the lack of specificity as to these witnesses' importance to Durametal's case and their availability, the Court is not persuaded the possibility they may not attend trial is sufficient to tip the balance in favor of a transfer.

FN3. emphasis added.

#### B. Public Interests

\*4 The Third Circuit Court of Appeals has noted among the relevant public interests are: the enforceability of the judgment, practical considerations that could make the trial easy, expeditious, or inexpensive, the relative administrative difficulty in the two fora resulting from court congestion, the local interest in deciding local controversies at home, and the public policies of the fora. Jumara, 55 F.3d at 879.

Not all these considerations are relevant to the present case, and, on balance the public considerations do not strongly favor either party. Plaintiffs argue if venue is transferred to Oregon,

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traveling time for the Sweden employees will be nearly doubled. There is no direct flight from Sweden to Portland, Oregon, plaintiffs say, and the estimated travel time, due to airline schedules, is 16 hours and 10 minutes. D.I. 10, Declaration of Carol Splaine, ¶ 4. In the event the trial is in Oregon, however, defendant does not have to travel at all. On the other hand, if the trial is held in Delaware, plaintiffs' employees still must travel approximately 10 hours and 40 minutes, and additionally, defendant's employees must also travel about 7 hours. *Id.* ¶ 3, 5. It therefore seems almost a wash in terms of overall cost and time devoted, whether plaintiffs' Sweden employees travel all the way to Oregon, or whether both parties meet in Delaware. The public interest in overall reduction of litigation costs is not vindicated by a transfer.

The parties also have submitted information from both fora on the average time lapses between initiation of a lawsuit and trial. Plaintiffs believe, due to this district's status as a pilot district under the Civil Justice Reform Act of 1990, courts in this district attempt to resolve of civil cases within one year. D.I. 10, at 17. Defendant countered with a declaration by its attorney, Douglas Blomgren, that the average time from filing a case until trial in the District of Oregon is 13 months. D.I. 12 ¶ 2(a). Once again, based solely on statistics the parties' interests are nearly equally balanced.

What is at stake is whether this patent litigation should be fought out in the East Coast (i.e. Delaware, plaintiffs' choice of forum) or the West Coast (i.e. Oregon, defendant's choice of forum). The East Coast is preferred and more convenient to plaintiffs, while the West Coast is preferred and more convenient to defendant. As to the overall *respective* convenience of the parties, the defendant has a slight edge, but this slight tip of the balance of convenience stems not from evaluation of the transfer criteria, but from the fact that it is almost *always* more convenient for a defendant to litigate in its home district. That advantage, in and of itself without more is insufficient to tip the balance in favor of depriving a plaintiff of its choice of forum. Shutte, 431 F.2d at 25. As detailed above, the parties have asserted equally compelling interests under section 1404(a) and *Jumara*. Accordingly, defendant has failed to convince the Court to override the preference given to the plaintiffs on their choice of forum.

\*5 An order will issue denying defendant's motion to transfer.

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Sunds Defibrator, Inc. v. Durametal Corp.

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#### Briefs and Other Related Documents

Only the Westlaw citation is currently available.  
 United States District Court, D. Delaware.  
 TEXTRON INNOVATIONS INC., Plaintiff,  
 v.  
 THE TORO COMPANY, Defendants.  
 No. Civ.A. 05-486 GMS.

Oct. 14, 2005.

Edmond D. Johnson, The Bayard Firm, Richard L. Horwitz, Potter Anderson & Corroon, LLP, Wilmington, DE, for Plaintiff.  
Richard L. Horwitz, David Ellis Moore, Potter Anderson & Corroon, LLP, Wilmington, DE, for Defendants.

#### MEMORANDUM

SLEET, J.

#### I. INTRODUCTION

\*1 On July 12, 2005, the plaintiff, Textron Innovations Incorporated ("TII") filed the above-captioned action against The Toro Company ("Toro"), alleging infringement of United States Patent Nos. 6,047,530, 6,336,311, and 6,336,312, which are directed to a gang type rotary mower. Presently before the court is Toro's motion to transfer this action to the District of Minnesota, pursuant to 28 U.S.C. § 1404(a). For the following reasons the court will deny the motion.

#### II. BACKGROUND

On July 12, 2005, TII filed the present patent infringement action involving technology related to the rotary mower used to cut golf course roughs. TII is the subsidiary of Textron Inc., and the assignee of the three patents in suit. (See D.I. 6, at 1 n. 1; D.I. 19, at 2.) TII is incorporated in Delaware and maintains its headquarters in Providence, Rhode Island. (D.I. 1 ¶ 3.) Toro is a Delaware corporation that maintains its headquarters in Bloomington, Minnesota. (*Id.* ¶ 4.) Toro's allegedly infringing products are manufactured in Tomah, Wisconsin. (D.I. 6, at 3.)

On August 15, 2005, Toro filed a separate action in Minnesota against Textron, Inc. and Jacobsen, a division of Textron, Inc., alleging that their products infringe two Toro patents relating to hydraulic drive system technology for riding mowers. The following day, Toro filed this motion to transfer venue to the District of Minnesota.

#### III. DISCUSSION

Pursuant to Section 1404(a), the court may transfer a civil action "for the convenience of parties and witnesses, in the interest of justice, ... to any other district ... where it might have been brought." 28 U.S.C. § 1404(a). It is the movant's burden to establish the need to transfer, and "the plaintiff's choice of venue [will] not be lightly disturbed." *Truth Hardware Corp. v. Ashland Prods., Inc.*, No. C.A. 02-1541 GMS, 2003 WL 118005, at \*1 (quoting *Jumara v. State Farm Ins. Co.*, 55 F.3d 873, 879 (3d Cir.1995)). In other words, "unless the balance of convenience strongly favors a transfer in favor of defendant, the plaintiff's choice of forum should prevail." *Shutte v. Armco Steel Corp.*, 431 F.2d 22, 25 (3d Cir.1970).

When considering a motion to transfer, the court must determine "whether on balance the litigation would more conveniently proceed and the interest of justice be better served by transfer to a different forum." *Jumara*, 55 F.3d at 879. This inquiry requires "a multi-factor balancing test," embracing not only the statutory criteria of convenience of the parties and the witnesses and the interest of justice, but all relevant factors, including certain private and public interests. *Id.* at 875. These private interests include the plaintiff's choice of forum; the defendant's preference; whether the claim arose elsewhere; the convenience of the parties; the convenience of the expected witnesses; and the location of books and records, to the extent that they could not be produced in the alternative forum.<sup>FNI</sup> *Id.* at 879. Among the relevant public interests are: "the enforceability of the judgment; practical considerations that could make the trial easy, expeditious, or inexpensive; the relative administrative difficulty in the two fora resulting from court congestion; the local interest in deciding local controversies at home; [and] the public policies



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of the fora.” *Id.* at 879-80.

FN1. The first three of these private interest factors collapse into other portions of the *Jumara* analysis. Thus, the court will consider them in the context of the entire inquiry only. See *Affymetrix, Inc. v. Synteni, Inc.*, 28 F.Supp.2d 192 (D.Del.1998).

\*2 Upon consideration of the relevant factors, the court finds that Toro has not met its burden of demonstrating that transfer is appropriate. First, the court concludes that convenience of parties factor weighs in favor of maintaining the action in Delaware. The court will afford less deference to TII's choice of Delaware as a forum because it is not its “home turf,” or principal place of business. See *Waste Distillation Tech., Inc. v. Pan Am. Res., Inc.*, 775 F.Supp. 759, 764 (D.Del.1991). However, it is not appropriate to disregard a plaintiff's choice of forum where it has a rational and legitimate reason for choosing the forum. See *Joint Stock Soc'y v. Heublein, Inc.*, 936 F.Supp. 177, 187 (D.Del.1996). In the present case, the fact that Toro is incorporated in Delaware is a rational and legitimate reason for TII choosing to sue it in Delaware. See *Stratos Lightwave, Inc. v. E20 Communications, Inc.*, No. Civ. A. 01-309-JJF, 2002 WL 500920, at \*2 (D.Del. Mar.26, 2002). Further, having received the benefits of Delaware incorporation, Toro cannot now complain that another corporation has chosen to sue it here. See *id.* Indeed, it is difficult for the court to find any inconvenience to Toro when it has previously chosen this forum in order to litigate its own patent infringement claims against Textron. See *Toro Company v. Textron, Inc.*, 499 F.Supp. 241 (D.Del.1980). Thus, the convenience of the parties weighs in favor of maintaining this action in Delaware.

The court also finds that the location of books and records weighs against granting Toro's motion to transfer. Toro contends that its books and records necessary for litigation are in Minnesota. A court should consider the location of books and records in its analysis. However, it must only do so to the extent that the files could not be produced in the alternative forum. *Jumara*, 55 F.3d at 879. Here, Toro does not suggest that its documents could not be produced in Delaware. Accordingly, this factor does not weigh in favor of the transfer.

Toro also contends that non-party witness convenience weighs in favor of a transfer. According

to the briefs, Toro plans to rely on testimony from two original inventors of the patents in-suit, three retired employees, and an employee of a local golf course. The two inventors do not reside within the subpoena power of Delaware or Minnesota. However, they have both stated, in sworn declarations, that they are willing to appear in Delaware for depositions and trial. (D.I. 19, at 3.) Thus, any inconvenience to the inventors weighs in favor of maintaining the action in Delaware.

As for the other witnesses, Toro has elected to rely upon retired and, therefore, “third-party” employees that do not reside within the subpoena power of Delaware. In support of its motion, Toro insists that due to personal circumstances, travel to Delaware is extremely inconvenient for its third-party witnesses. (D.I. 6, at 4-6.) The court is not persuaded by this argument, and finds Toro's reliance on former employees, rather than its current employees, questionable. Further, as this court has previously held, a flight to Delaware is not an onerous task warranting transfer. *Truth Hardware Corp. v. Ashland Prods., Inc.*, No C.A. 02-1541 GMS, 2003 WL 118005, at \*2 (D. Del. Jan 13, 2003). Moreover, Toro has not asserted that the identified witnesses are the only individuals capable of testifying as to the technology of the accused products. Nevertheless, if necessary, TII has agreed to take witness depositions in Minnesota. (See D.I. 19, at 23.) For these reasons, the court concludes the convenience of the witnesses does not favor transfer in this case.

\*3 Finally, the court finds that the public interest factors do not weigh strongly in favor of transfer to Minnesota. First, Toro's pending litigation in Minnesota was filed after TII initiated this lawsuit, and involves different patents. Thus, the court believes that this is not a relevant consideration in favor of transfer. See *Mentor Graphics Corp. v. Quickturn Design Sys., Inc.*, 77 F.Supp.2d 505, 513 (D.Del.1999) (refusing to give “any weight whatsoever” to a mirror image action filed by the defendant). Additionally, the court is not persuaded that any disparity in court congestion, to the extent there is any, will be so great as to weigh strongly in favor of a transfer. Finally, it is well settled that patent rights are not considered state or local matters and do not implicate local interests. *Jones Pharma, Inc. v. KV Pharm. Co.*, No. Civ. A. 03-786 JJF, 2004 WL 323109, at \* 3 (D.Del. Feb.17, 2004). The court, therefore, finds no strong local interest in litigating in the transferee forum. Accordingly, the court concludes that public interest factors do not favor transfer in the instant case.



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*ORDER*

For the reasons stated in the court's Memorandum of this same date, IT IS HEREBY ORDERED that:

1. The defendant's Motion to Transfer the Case to the United States District Court for the District of Minnesota (D.I.5) is DENIED.

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Textron Innovations, Inc. v. The Toro Co.  
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Briefs and Other Related Documents ([Back to top](#))

- [2005 WL 3242158](#) (Trial Pleading) Defendant's Amended Answer and Counterclaims (Nov. 9, 2005) Original Image of this Document (PDF)
- [2005 WL 2603883](#) (Trial Motion, Memorandum and Affidavit) Plaintiff Textron Innovations Inc.'s Brief in Opposition to Motion to Transfer Venue (Aug. 30, 2005) Original Image of this Document (PDF)
- [2005 WL 2603569](#) (Trial Pleading) Answer (Aug. 29, 2005) Original Image of this Document (PDF)
- [2005 WL 2603700](#) (Trial Motion, Memorandum and Affidavit) Toro's Reply to Textron's Brief in Opposition to Motion to Transfer Venue (Aug. 19, 2005) Original Image of this Document (PDF)
- [2005 WL 2603699](#) (Trial Motion, Memorandum and Affidavit) Opening Brief Supporting Defendant Toro's 28 U.S.C. | 1404 (a) Motion to Transfer Venue to Minnesota (Aug. 16, 2005)
- [2005 WL 2385695](#) (Trial Pleading) Complaint (Jul. 12, 2005) Original Image of this Document (PDF)
- [2005 WL 2912858](#) (Trial Pleading) Complaint (Jul. 12, 2005) Original Image of this Document (PDF)

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